DOCUMENT RESUME

ED 300 951 EC 211 096

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TITLE Communication Assessment Procedures for Students with Severe and Multiple Disabilities.
INSTITUTION Oregon State Dept. of Education, Salem. Student Services Section.
PUB DATE 87
NOTE 104p.
PUB TYPE Guides - Non-Classroom Use (055) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC05 Plus Postage.
DESCRIPTORS *Communication Skills; Elementary Secondary Education; *Evaluation Methods; *Language Acquisition; *Multiple Disabilities; Preschool Education; *Severe Disabilities; Student Evaluation

ABSTRACT

The training manual was developed as a result of a summer training institute held in 1986 for teachers of low-incidence populations (those made up of students with severe and multiply handicapping conditions). The institute aimed to provide teachers with the latest information and technology to assess and develop early communication skills, and the manual was written to provide teachers with a framework for developing appropriate programs. The first chapter provides an overview of communication development including the impact of a disability on communication. In Chapter 2, a sequence of assessment activities outlines the entire assessment process from start to finish. This chapter also provides information about the responsibilities of an educational team. Chapter 3 explains the stages or levels of communication development and the components of a communicative act (content, form, and function). Chapter 4, the longest chapter, details the assessment process itself, including guidelines and specific assessment instruments. Finally, Chapter 5 presents procedures for turning specific assessment data into an Individual Educational Program. Appendixes provide a reprint of an article, "A New Curriculum for Tommy," and descriptions of seven instruments currently available. (DB)

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Communication Assessment Procedures for Students with Severe and Multiple Handicaps

by

Annette Skowron-Gooch

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PREFACE

The provision of special education services to students with a wide range of abilities and disabilities has been supported by an equally wide range of intervention options. Public schools are responding to needs and providing an education for students who have severe and multiple handicapping conditions. Service providers are faced with the dilemma of "keeping abreast" with research and current information in order to implement the best possible educational standards practices in their program. In response to this need, the Oregon Department of Education, in cooperation with the Higher Education Council and the Cooperative Personnel Planning Council, sponsored a summer training institute in 1986, to provide the latest information and technology to teachers of low-incidence populations. Low-incidence handicapping conditions include students with both sensory and motor impairments, students with dual sensory impairments and students who have autism. The focus of the institute was development of the early communication skills from the preintentional through emerging language levels.

Thirty-six individuals attended the institute. Another 34 applied but did not attend due to space and staff follow-up limitations. This training manual has been developed in an effort to make conference information available to individuals who were unable to attend.

This manual is <u>not</u> a simple summary of speakers' presentations. The material represents a consolidation and reorganization of information. It provides teachers with the necessary information, and intervention strategies to develop communication programs for their students with severe disabilities. The manual reflects the content but not the actual organization of the summer teachers' training institute.

Participants' evaluations of summer institute sessions were used to determine the relative importance of each topic, the perceived value of the information presented, and the issues that needed clarification.

This manual, like the summer teacher training institute, advocates the need for an active multidisciplinary team process in the development of effective educational programs for students with more severe handicaps. A number of individuals have contributed their knowledge and expertise.

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TABLE OF CONTENTS

	Page
Preface	iii
Appendices, Tables, Figures, and Forms	vi
CHAPTER 1: INTRODUCTION	
Introduction	1
Overview of Communication Development	2
Impact of a Disability on Communication	2
A Basis for Communication	2
CHAPTER 2: BEFORE YOU TEST	
Introduction	5
Flowchart for Communication Assessment Sequence	5
Team and Assessment Processes	7
Why are we assessing this child?	9
What are we going to assess?	9
How are we going to assess the child?	10
CHAPTER 3: ASPECTS OF COMMUNICATION	
Introduction	11
Sequence of Communicative Behaviors	11
Determining Content	13
Summary of Communicative Forms	17
Summary of Communicative Functions	21
CHAPTER 4: ASSESSMENT GUIDELINES AND INSTRUMENTS	
Introduction	23
Assessment Considerations and Guidelines	23
Guidelines for Planning Assessment of Communicative Behaviors	26
Determining Receptive Modes of Communication	28
Behavioral Observation	29
Recording Anecdotal Observations	30
Informant Interview	34
Prelanguage/Language Communication Sample	37
Determining Representation Skills	48
Levels of Representation	48
Summarizing Modes of Communication	53
CHAPTER 5: PUTTING IT ALL TOGETHER	
Introduction	55
Writing Goals	55
Scheduling Communication Goals Across the Day	56

Page

APPENDICES

Appendix A: "A New Curriculum for Tommy" 61
Appendix B: Instruments Currently Available. 66
Bibliography 70
References 72
Attachments 74

TABLES

Table 1: Assessment Instruments 25
Table 2: Observable Communicative Behaviors. 30
Table 3: Functions Assessed Through Informant Interview. 35
Table 4: Sequence for Symbolic Representation. 49
Table 5: Sample Communication Goals. 55
Table 6: Preverbal Comunication Assessment Instruments 69

FIGURES

Figure 1: Development of Intentional Communication 3
Figure 2: Communication Assessment Flowchart 6
Figure 3: Individual Skill Goals Priority Rating Sheet 18
Figure 4: Assessment Instrument Flowchart 24
Figure 5: Observation No. 3 32
Figure 6: Activity/What Happened 33
Figure 7: Assessment of Content, Form and Use--Information Interview . 35
Figure 8: Assessment of Content Form and Use--Sample of Language and Communicative Nonverbal Behavior 36
Figure 9: Prelanguage/Language Communication Sample 47
Figure 10: Sample Communication Board 50
Figure 11: Levels of Representation 52
Figure 12: Determining Modes of Communication 54
Figure 13: IEP Goal Sheet 57
Figure 14: Sample Activities Matrix 59
Figure 15: Communication Goals Written into Task Analysis 60

ATTACHMENTS

Attachment 1: Individual Skill Goals Priority Rating Sheet 75
Attachment 2: Observation No. ____ 77
Attachment 3: Activity/What Happened 79
Attachment 4: Assessment of Content, Form, and Use--Informant Interview 81
Attachment 5: Assessment of Content, Form, and Use--Sample of Language and Communicative Nonverbal Behavior 87
Attachment 6: Prelanguage/Language Communicative Sample 89
Attachment 7: Assessing for an Augmentative Communication System 91
Attachment 8: Determining Modes of Communication 97
Attachment 9: Activities Matrix. 99

CHAPTER 1: INTRODUCTION

The titles of the classrooms differ--multihandicapped learner classroom, developmental learning center, basic skills center, etc.--but the teachers assigned to these classrooms have much in common. They are expected to provide individualized, functional programs in the community, coordinate IEP goals with a number of support staff that may or may not understand instructional issues and accept responsibility for their students' progress. It is doubly challenging to manage a well-run classroom and provide service to students with a wide range of disabilities. Students with labels such as, "hopelessly retarded," "unteachable," and "profoundly multiply handicapped" are placed in the classroom. Expectations for these students remain the same--to develop meaningful programs, to provide community experiences and to demonstrate progress. Is this a reasonable expectation? Where and how do we begin to meet it? Often these students are nonverbal and do not initiate interactions or even respond to the world around them.

This manual was written to provide teachers with a framework for developing appropriate programs for these students. The focus of the manual is communication; an area critical for all students at <u>all</u> times. In some situations, a teacher may use the materials and procedures to help assess students' current communicative abilities or to copy specific sections to train parents and aides. Given a teacher's time restrictions, it may be difficult to collect all the necessary data without assistance. In this case, they may share the manual with itinerant staff and enlist their help with the assessment. Similarly, itinerant staff may wish to help a classroom teacher. Specific charts or sequences from this manual may assist itinerants to communicate critical information to the classroom team.

This manual is divided into self-contained components to allow for ease in relaying information in a logical manner. Chapter 1 provides introductory information about communication. In Chapter 2, a sequence of assessment activities outlines the entire assessment process from start to finish. This chapter also provides information about the responsibilities of an educational team. Chapter 3 explains the stages or levels of communication development and the components of a communicative act (content, form and function). Chapter 4 details the assessment process itself, including guidelines and specific assessment instruments. Finally, Chapter 5 presents procedures for turning specific assessment data into an Individual Educational Program (IEP). It is not the intent, however, that a student's abilities be assessed one component at a time. It is critical that we address the total child. If we assess isolated skills and abilities in isolated circumstances, the results will not be representative of that student's true needs and abilities.

This manual focuses on basic communication strategies for students who present significant challenges to the educational system. Unfortunately, there are no easy answers. However, a complete assessment and careful program planning will offer a student an opportunity to develop and demonstrate communicative competence.

Overview of Communication Development

Impact of a Disability on Communication

Research on infant development has demonstrated that newborn babies can imitate body movements and facial gestures (Dunkeld, 1978; Maratos, 1973; Meltzoff & Moore, 1977), recognize their mother's face and voice (Carpenter, 1975), and interact synchronously with the human voice (Conden & Sender, 1974). Infants are aware of humans and through their interest in people they learn to communicate.

Behavior of young infants is not specifically communicative, but parents will react as if their child is intentionally giving them messages (e.g., hunger, distress, wanting a toy). While this behavior may initially be reflexive, it becomes the foundation for a communicative exchange. The baby's signals are increased as the parents respond and infants learn that their behavior can have an effect on the environment. In this way, babies learn they are separate from the world around them.

When a child is born with a handicapping condition, their ability to experience and organize their world can be profoundly affected. If they are unable to see, hear or grasp objects and people around them, they are denied the foundations of early learning experiences. Alternative learning channels must be found. When a child has multiple handicaps, the options are reduced still further.

Infants play critical roles in communicative situations. The caregiver will want to interact with them and will behave as if the child wants to communicate. If the child does not respond or sustain the interaction, it may alter the caregiver's behavior and no shaping of intentional communicative behaviors will take place. In some cases, caregivers have adapted their communication style and learned that there are certain things they can do in order to get their child to respond. However, these attempts are not always successful and may consequently decrease. In extreme cases, such as in institutional settings, the cumulative effect is that people receive maintenance care, that is, they are dressed, washed and fed with minimal regard to social/communicative interaction. Caregivers may not have received expected responses from those with whom they try to communicate. Neither party learns that their behavior can indeed have an effect on the other. Learned helplessness, for both parties, is the end result.

A Basis for Communication

Communication is first and foremost a social tool. It is an exchange of ideas or intentions from one person to another. Communication is different from language which is a formal code (e.g., verbal, written words, signs) whereby ideas and information about the world can be shared. Language codes are means for symbolizing one thing to represent another. Communication with other people exists long before a child has language (Mahoney, 1975). People can communicate personal needs and other information without formal language systems.

This manual focuses on students whose communication does not involve a formal language level, but rather relies on prelinguistic or prelanguage forms of communication. While the specific relationship of communication, cognitive, and social development is not entirely clear, the development of each area is important for the development of language. This interrelationship is illustrated in Figure 1. In learning a communication and language system, the child/student must learn three major skills. These include:

1. *The meanings of objects, relations, and people (something to refer to)*

2. *A communicative act or means of responding (pointing, gestures, speech, sign), and*

3. *An intent to communicate a specific function" (Stremel-Campbell, 1984, p 20).*

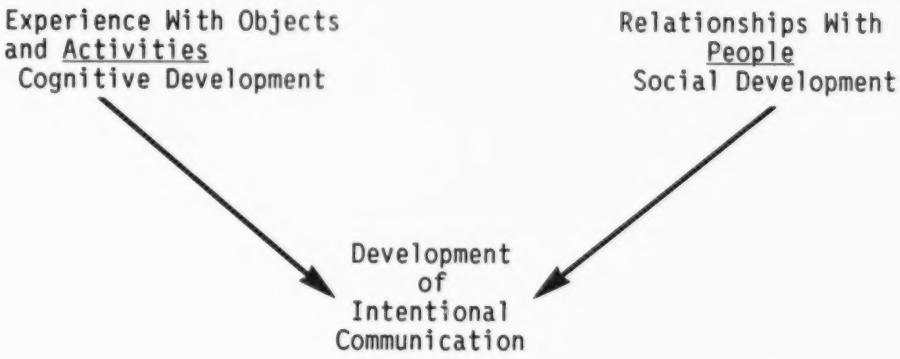

Figure 1: Experience with objects and people both have integral roles in the development of communication behaviors.

The meaning of objects, something to communicate about or content is the message that a person will share. According to Bloom & Lahey (1978) content is related to the user's cognitive abilities which are developed through interaction with the environment.

A way to communicate or a means of responding about a message or form, refers to the surface structure of the communicative act. For example, a nonspeaking adolescent may communicate "No, I don't like this shirt" by pushing it away, shifting her eye gaze to another shirt, shaking her head back and forth or stiffening her arms while being assisted with putting it on. These are four different forms for sending the same message.

The function or purpose of the communicative message necessitates a receiver or someone to communicate with. In the above example "protest" or "rejection" was the intent or function of the communicative act. Other functions that may

be communicated without language include requesting, calling attention to self, greeting, protesting, offering, commenting, questioning, answering, and confirming.

The following examples demonstrate how content, form and function comprise a communicative exchange between two people.

Examples:

Content	*Form*	*Function*
Grandpa is bouncing Gregory on his lap-- he pauses	*Gregory moves upper body up and down*	*request more*
Family is seated at breakfast table	*Tricia pushes bowl of cereal away*	*rejection*
School bus arrives at school and is unloading	*student looks at teacher and smiles*	*greeting*
Emily is trying to open a margarine tub	*she takes her mother's hand and puts it on the container*	*request help*

This does not infer that there are prerequisites for students in order to teach communication or develop educational programs. Rather, the teacher or caregiver must always ask the following questions:

Does the student have something to communicate about?
Does the student have a way to communicate it?
Does the student have someone to communicate with?

When any situation occurs whereby a student is not communicating with others, the answers to one of the above three questions is "no." Communication can occur only when there is content, form and function. It is the teacher's responsibility to manipulate the environment in order to ensure that a student can demonstrate communicative competence.

CHAPTER 2: BEFORE YOU TEST

Introduction

In order to appropriately plan an individual's communication program, you must know exactly what skills they have and what skills they will need in order to fully participate outside of the school environment. They need a communication assessment. Whether this assessment is completed by the classroom teacher or related service staff, a number of factors must be considered before beginning the actual communication assessment. "Before you test" provides a platform for these considerations. It begins with a flowchart outlining communication assessment procedures which can be referred to throughout the manual for specific decision-making sequences. The next section, "Team and Assessment Processes," organizes the first steps of obtaining a student assessment. Team members are responsible for determining why an assessment is necessary, what will be assessed, and how that information will be obtained.

The following section includes levels of communicative competence beginning with the reflexive level and outlining communication development through the emergence of symbolic language. While the development of communication through the emergence of symbolic language is divided into six different levels, it is unlikely that any individual student will clearly fit into a specific one. A student will more likely demonstrate behaviors in several different levels. Due to uneven development patterns and individual ranges of experiences, especially for the older person, a student may have a number of individualized means for communicating specific needs and events. Examining communicative behaviors in the context of communication development allows for more accurate program development.

The remainder of this chapter delineates each component of the communicative act (content, form and function). Concise tables list specific behaviors and definitions.

Flowchart for Communication Assessment Sequence

Once it has been decided that a student's communication skills need to be assessed, a number of questions must be answered.

What specific information is needed?
Who will collect that information?
What assessment instruments will be used?
How will the information be translated into meaningful programs?

It is likely that a team of individuals will work together to complete the assessment. A recommended assessment sequence has been diagramed in a flowchart in Figure 2. This chart is a guide for making specific procedural decisions, as a means to facilitate communication between team members.

In the following chart, all process and procedure points, as indicated by a rectangle, are referenced to a subsequent section of the manual. Background information, and specific procedures are described in these sections.

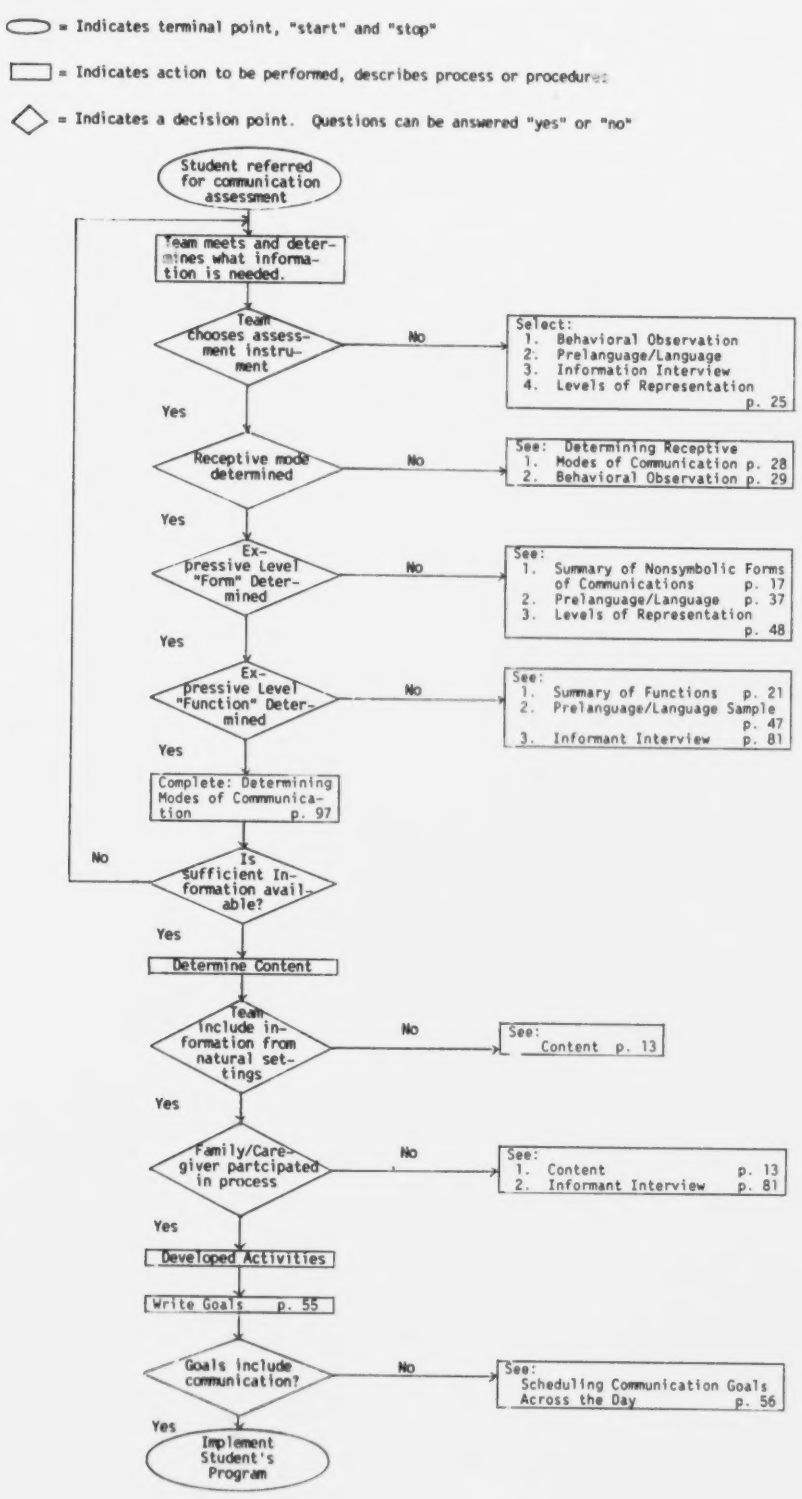

Figure 2: Decision making flowchart for developing appropriate communication programs for students with multiple handicaps.

Team and Assessment Process

"No one person or profession has an adequate knowledge base and sufficient expertise to make unilateral decisions and perform all functions associated with the provision of educational services for handicapped persons." (McCormick & Schiefelbusch, 1984). For this reason PL 94-142 has mandated that committees or multidisciplinary teams organize for the purpose of student assessment, planning and intervention. Members of the evaluation team may or may not serve on the IEP or service delivery team.

For the purposes of this manual, it is assumed that the team is meeting for the purposes of programming. Due to the students' multiple handicapping condition, it is likely that the team will be composed of several people who have expertise in a variety of fields. Because of their training background, they will all have valuable knowledge to share. However, they must work together to address the total child not as individuals working in isolation. Their goal is to delineate appropriate procedures needed to obtain an evaluation regarding a student's communication skills and to develop the program plan. This cannot be accomplished without the benefit of the different perspectives from the team members. Related team members may include, but is not limited to, the following professions.

Teacher

The teacher is usually the central figure of the team (though not necessarily the chairperson). He or she has expertise in developing appropriate curriculum, alternative performance strategies, arranging for community integration, securing peer tutors and supervising the classroom assistants. Due to ongoing close contact with a student, a teacher monitors IEP progress and coordinates schedules.

Parent (or family member)

A family member is critical to the team. They can provide much information about the student's past and current communication skills, barriers to effective communication, what they want to communicate about, and current and future environments.

Communication/Language Specialist

A communication/language specialist will assist with obtaining specific assessment information, interpreting past and current test information, determining modes of communication, and teaching others in communication training techniques.

Physical Therapist (PT)

Physical therapists are primarily responsible for the students' development of gross motor skills and can provide information regarding optimal positions for utilizing alternative communication devices and ability for consistent motor movements. They can assist in teaching, appropriate positioning, and handling and use of adaptive equipment.

Occupational Therapist (OT)

An occupational therapist is concerned with those motor skills that are necessary for activities of daily living (personal hygiene, dressing, eating, etc.). These are largely fine motor skills. OTs can assist with assessment for the use of microswitches, hand use, eye-hand coordination, and specific training to use alternative communication devices and positioning.

Vision Specialist

A vision specialist will assist in the assessment of functional vision, eye-hand integration, interpretation of ophthalmology or optometric reports and provide adaptations and special equipment to allow the student to use his/her residual vision.

Hearing Specialist

A hearing specialist will assist with the interpretation of audiology reports, adapting teaching techniques and curriculum, and the use of special equipment. They will also have expertise in teaching students, staff and family sign language and other alternative communication modes.

Autism Specialist

An autism specialist can assist in determining the student's specific learning styles, adapting curriculum and developing alternative performance strategies. They have extensive training with teaching communication, social skills, and in dealing with inappropriate behaviors.

School Psychologist

A student's strengths, weaknesses and learning styles can be identified by a school psychologist. If necessary, she/he can assess a student's cognitive and adaptive abilities.

The fundamental responsibility that all team members have in common is to share their information and train other team members their skills.

"The first transdisciplinary team effort that deals directly with an individual student is a collaborative assessment. The purpose of an assessment is to obtain student-specific information sufficient to develop an initial educational program and to initiate instruction" (York, 1984, unpaginated). Miller (1978) suggests that three questions form the basis of the assessment process.

1. *Why are we assessing the child?*
2. *What are we going to assess?*
3. *How are we going to assess the child?*

In answering these questions, goals, content, and assessment methods can be determined.

What are we going to assess?

A referral to an evaluation team may request an assessment for a number of reasons (Miller, 1978).

1. *Identify potential problems--screening*
2. *Establish baseline functioning*
3. *Measure behavioral change within a teaching program*

Due to the severity of handicaps of students addressed in this manual, it is assumed that severe communication problems are present and a formal initial screening is not necessary. Here, the major task of the team will be to establish baseline functioning levels. When determining specific ability levels, not only the skills and needs of the student are to be considered, but also those of the primary caregivers.

Information obtained should be easily translated into specific IEP goals for program development and to measure progress over time. Both long and short term goals should be considered.

Why are we assessing the child?

York, et al. (1985) recommends the following assessment guidelines in order to maximize efficient use of staff time.

1. General background information.

   "Information from family member, previous service providers, and the child's cumulative file can be obtained regarding past and current educational goals, priorities, special abilities, unique learning characteristics, personal preferences, friends, etc." (p 7)

2. Observations of student.

   Actual observations of the student in various natural environments and activities are jointly conducted by all of the team members. Guidelines for student observations are presented in this manual.

3. Assessment specific to each profession.

   "Each professional team member should obtain information specific to his or her area of expertise." (p 7) While all information in this manual relates primarily to communication, the student assessment will not be complete without information specific to other disciplines.

A communication assessment should provide information about the students:

1. *Receptive modes of communication which tells us how we are going to present information to the student.*
2. *Expressive modes of communication including both forms and functions.*
3. *Representational skills which is his/her ability to use objects or pictures to communicate.*

How are we going to assess the child?

Assessment procedures can be divided into four basic categories (Miller, 1978).

1. *Standardized tests*
2. *Developmental scales*
3. *Nonstandardized tests*
4. *Behavioral observation*

Each test category has specific advantages and disadvantages and can be used to meet team goals accordingly.

Standardized tests are the most structured form of assessment and are commonly used for the purposes of determining eligibility for special education services. Students with severe or multiple handicaps typically do not perform well in structured, clinical settings. "What is critically absent is the context which can be used to show the child's abilities to use language for the exchange of information with other persons--the social uses of language." (McCormick and Schiefelbusch, 1984, p 129).

Developmental scales are more informal than standardized tests. As the title implies, the instruments assume that the progress of a child with a disability will follow along the same predictable sequence as that of their nonhandicapped peers. The sequence of "milestones" may identify only gross steps lacking sensitivity to the individual student's abilities. Decisions to use a developmental scale should also consider the student's age. The relative value of information obtained for a three-year-old versus a thirteen-year-old may dictate whether or not a developmental test is used. For example, a team may decide to teach a young child verbal communication skills by shaping gross vocalizations into words. Given the amount of time and effort it would take to teach the same skill to a teenager, it may be more appropriate to teach gestures and the use of a communication board.

Nonstandardized tests are informal assessment instruments developed by teachers. They are designed specifically for the students and therefore give a measure of his/her abilities. Nonstandardized tests are flexible and procedures can be adapted according to the student's responses. Chapter III of this manual presents several nonstandardized assessments that can be used to obtain meaningful information about a student's communication abilities. When used systematically, procedures allow for flexibility and can be modified to meet specific student needs. These assessments provide baseline functioning and ongoing program progress.

Finally, behavioral observations can be used to assess the student in both structured and unstructured settings. They can be used to obtain narrative, anecdotal accounts of a child's abilities or to collect specific event, frequency and duration data. "Several team members [can] jointly plan for and conduct the assessment, in which the student functions in several natural environments and activities." (Orelove, 1986, p 20)

CHAPTER 3: ASPECTS OF COMMUNICATION

Introduction

Chapter 3 of the manual provides teachers and related service staff necessary background information and terminology. "Sequence of Communication Behaviors" outlines the development of intentional communication through the emergence of symbolic communication. Content, form and function, the three aspects of communication, are all expanded with charts and examples to differentiate each particular role in communication. Terminology presented here is basic to the techniques described in the remainder of this manual.

Sequence of Communicative Behaviors

The development of intentional communication begins with reflexive acts and continues through emerging language levels. These levels or stages are briefly described below (Stremel-Campbell, et al., 1984). For clarity information is presented in a sequence, however, it is unlikely that a student's behavior will be at only one level. A student may function in several levels at once.

Level I Reactive (Reflexive) Behavior

Behaviors emitted by the individual are not purposeful or intentional, rather they are reflexive or reactions expressing the individual's state. (i.e., hunger, wet, hurt, distressed). This state is interpreted by the observer.

Example: Tony and his brother, Nick, are in the family room. Tony sits in his wheelchair oriented towards Nick who is looking at magazines. Nick walks across the room to turn on the radio. As Nick crosses his brother's path, Tony's eyes widen. When the music is turned on Tony's general activity level increases. Nick finds the station of his choice, hard rock, and turns up the volume. Tony stiffens. Nick interprets this to mean the volume is too loud and turns it down.

Behaviors and possible interpretations: Tony's eyes widening at brother's approach could be interpreted as a greeting, want of attention, or simply a notice of movement around him. His increase in activity level could also be interpreted as notice of change in his environment, or preference for that particular station. While Nick interprets his brother's stiffness to mean the volume was too high, he also could have inferred that Tony did not like the music.

Level II Proactive (Intentional) Behavior

Behaviors are purposeful, but not so as to intentionally communicate. Some understanding of cause and effect is demonstrated. The individual will not involve another person to communicate. Observer infers intent of behavior.

Example 1: A baby plays in the crib and hits the mobile with a foot. When the mobile slows down the baby kicks the mobile again.

Example 2: A student wants to get into a shoebox to get the toys inside, but the teacher's hand is on top of it. The student pushes the hand off and opens the box.

Example 3: A student has a switch hooked up to a cassette player. He hits the switch in order to turn on the music.

Level III Primitive Intentional Communication

Behaviors are simple nonlinguistic (nonlanguage) means of communication intentionally signaling messages to another person. The individual shows only "single orientation," that is, behaviors are directed at the person or at the object, not both.

Example 1: Mother offers child glass of milk. Child pushes it away.

Example 2: Child wants to get into shoe box to play with toys inside. Teacher's hand is on top of it. Child is unsuccessful in his attempts to push it off. The child establishes eye contact with adult and/or says "ahh."

Example 3: A child's hand leads his parent to refrigerator door handle.

Level IV Conventional Intentional (Presymbolic) Communication

Behaviors have the intent of affecting observer's behavior through objects/events and other persons. The individual shows "dual orientation." Behaviors are characterized by conventional gestures.

Example 1: Frank wants more candy. He extends his hand, palm up, to the person holding the bag.

Example 2: Sue is making a leisure time choice. She looks at the teacher, to the computer, and back to the teacher.

Example 3: Linda is in the checkout line purchasing some groceries. When the cashier looks at her, she extends her wallet.

Level V Concrete Symbolic Communication

Behaviors include limited use of concrete objects/pictures/sounds to communicate functions and intents. There is a one-to-one correspondence between the symbol and the referent. This level is characterized by the increasing distance between the person and the referent.

Example 1: Just before recess, Katie chooses a rattling chain to indicate she wants to play on the swing.

Example 2: Jeffrey points to a photo of Taco Time to indicate where he is going for lunch.

Example 3: When picking up a bottle of aftershave from his symbol shelf, Ed knows the next activity is to go to the bathroom to shave.

Example 4: When Nicole feels the piece of carpet square, she goes to the carpet for morning story time.

Level VI Abstract Symbolic Communication

Symbols representing environmental entities become more abstract. This includes printed words, true manual signs and symbolic pictures, such a Blissymbols. There is a one-to-one correspondence between the form and function, that is, one symbol communicates one message.

Example 1: Allen signs "help" to get assistance in zipping his coat.

Example 2: Donna says "want shirt" as she chooses which shirt to wear.

Example 3: John looks at his teacher, to the word "lunch" and back to his teacher when his morning activities have been completed.

As the child's vocabulary expands, along with the number of forms and functions they can use to communicate, higher levels include the use of symbols out of context, use of forms to stand for more than one function, and the combination of symbols to express different meanings.

Determining Content

Most teachers and related service staff have experience with "language programs." We have been taught to put a shoe, a cup, and a book on the table in front of the student and say, "Show me the shoe." After approximately twenty minutes of performing variations on this theme, we terminated "language time" and moved on to other subject matter. Eventually, after a phenomenal

number of trials, our students were able to point to a shoe, a cup, and a book. Yet somehow, no real changes were seen in terms of the student's ability to communicate throughout the day.

Content gives meaning to a communicative act. Without "something to refer to" the essence part of communication is lost. Isolated tasks presented out of context on top of a table usually do not make a meaningful difference in students' lives. Appropriate content is not there.

As it is difficult, if not impossible, to teach meaningful communication in an artificial setting, so it is difficult to assess communication skills in such circumstances. Assessment too must be removed from the "clinical" setting.

Assessment refers to an evaluation of abilities or skills. It does not require the removal of the student from his or her regular activities and the presentation of a battery of test items. By doing this, one of the most important parts of communication is eliminated: content. A child's specific communicative abilities (forms and functions) must be evaluated while simultaneously assessing the environmental content in which they occur.

Where does one begin this process? Begin by thinking of communication from a different perspective. No longer consider it an isolated curriculum area. Stop dividing the student's world into communication, fine motor, gross motor, social and academic skills. Stop thinking that communication only involves the mouth. A student's eyes, arms, legs, and hands are important communication tools.

To determine content, look at where and how the child spends the day. How are evenings and weekends spent? What chores are expected at home? These activities can be divided into general categories called <u>domains</u>. Instead of the typical curriculum areas, it is more reasonable to think of the general activity areas of:

Leisure and recreation
Home Management (i.e., household chores, cooking)
Personal Management (i.e., dressing, hygiene)
Vocational (i.e., work habits, specific work skills)

It is difficult to let go of the traditional academic areas, but these are not traditional students with which we are working.

This change in curriculum domains reflects a significant change in the educational focus. Instead of focusing on the schools' role of developing classroom competencies, we acknowledge that the purpose is to prepare the student for a meaningful life outside school and after school. Changing our focus to activity domains changes the context for communication. Meaningful activities occur at home, at school, and in the community. For example, in the area of leisure and recreation, an elementary-age student may encounter the following opportunities: opportunity to use school playground equipment, need for independent play as well as play activities with a sibling, and opportunities to play at the park across the street from home. Determine the most appropriate and most needed skills through watching the student in these situations. All of the assessment instruments presented later in this manual

can be used in multiple environments. Specific communication abilities or skills will be assessed while simultaneously determining meaningful and functional activities in which skills will be utilized. While observing the student, determine:

What are the communicative demands of the environment?

What does the student need to do to fulfill these demands?

Will someone have to perform the activity if the student does not perform that skill?

Ask:

Can the student use this skill in the current environment?

Will the skill be useful in future environments?

Can the skill be used across several environments?

How often will there be opportunities to use the skill?

If the student does not have multiple opportunities to use the skill in current and future environments, it is not a functional skill for that student.

It is not uncommon for educators to hold low expectations for students with severe handicaps. Instead of being content with those lower expectations, ask, if a student is not doing a normal activity, is there anyway it can be adapted to allow for increased student participation? For example, instead of telling a student what to do during leisure time, arrange the situation so that the student can make a choice by indicating an object representing one of the alternatives. In the community, a student can order food in a restaurant using a photo card rather than having another person order for him/her. If the student does not typically venture out into the community or participate in routine activities, do not simply choose tasks and materials that seem to be age appropriate. Instead, speak with the family member and ask them what outings they have had with or without their handicapped child. Are there games their siblings typically play? Where do they go grocery shopping? Look around the school. What are nonhandicapped students of like age doing? It is important to consider family values and lifestyles. There is no use in teaching a student how to order in a fast food restaurant if their family does not frequent them. In choosing a game to teach, it would be more useful to teach a game that other students play on the playground as opposed to one that will only be used in the classroom. Ask:

Is the activity one performed by nonhandicapped students of like age?

Will is allow the student to be more independent/appropriate?

Will the activity facilitate peer/family interaction?

Can the skill be taught using realistic materials in realistic settings?

In summary, the procedures for determining content should begin and progress in a direction opposite to what we have typically done. That is, we were taught to decide the skills in which the students were deficient and design activities that would allow for their instruction. Unfortunately, we found ourselves with long lists of skills in which our students were deficient and struggled to make up tasks that would incorporate these target skills. A more meaningful and functional alternative for the student would proceed along the following sequence:

1. *Identify major "activity" domains.*

2. *Identify natural environments in which the student, family, and same aged peers participate.*

3. *List specific activities in which the student has an opportunity to participate.*

4. *Determine skills the student needs in order to participate in the activities.*

"A New Curriculum for Tommy" (see Appendix A) demonstrates this process with a twelve-year-old multihandicapped student. The bibliography lists further resources for determining content.

The Individual Skill Goals Priority Rating Sheet (Attachment 1), developed by Linda Cook Johnson, can be used in prioritizing goals. When developing an IEP, the family, teacher and specialists will all have recommendations for individual student goals. The rating sheet includes 18 questions that address the appropriateness and relative value of each of the identified goals. Each question is rated on a scale of 0 to 4 with the total score indicating high or low priority for the goal.

The priority rating sheet can be adapted to meet the needs of students of different age levels. In the example (Figure 3), the student is 12 years old. By the time students are in junior high school, their lack of "prerequisite" skills is no excuse for not introducing an activity. Rather, at this age, alternative performance strategies need to be developed. For this reason, item 8 "Does student have prerequisites for the skill?" was omitted.

Completing this form requires some subjective decisions and the teacher may want assistance from the family or other team members in completing the form. For example, riding a three-wheel bike may be a good recreational activity that allows for community participation; but some may argue that it is socially stigmatizing or a student may have very little opportunity to ride a bike outside of school if he/she does not have a paved driveway or a smooth surface near home. Another goal, benchwork tasks, is intended to prepare the student for vocational options, yet the response to many questions is often "maybe" as it is impossible to determine whether skills taught will actually be usable (i.e., will the student get a job utilizing those skills?). If a team member feels that benchwork activities might be appropriate in spite of the overall low score, there may be ways to adopt the goal to make it more functional. For example, the student can learn to use tools that will allow for participation in household chores.

In reviewing all the goals and their scores, "identify objects" is the lowest priority. As opposed to teaching this is an isolated skill, a better team decision would be to teach objectives within the context of other activities (e.g., identifying important objects used in fast food restaurants, grocery shopping, showering, and so on).

Summary of Communicative Forms

One component of a communicative act is the means by which a message is relayed. There are a number of ways to get a message across to another person. One can use simple gestures, vocalizations, eye gaze, or specific body movements. These are called prelanguage behaviors and form the groundwork for meaningful communication systems. This section reviews a sequence of prelanguage communication behaviors that may be used by a student. They are all nonsymbolic and therefore are considered primitive intentional (Level III) and conventional intentional (Level IV)[1].

When students have motor impairments and are not able to produce some of the specific body movements listed, adaptations are possible. For example, switch devices are available to indicate choices or for yes/no. Calling devices are available or can be used to gain attention of listeners, and individualized communication systems can be designed from the vast array of computer programs and communication boards.

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1 The earlier levels, reactive (Level I) and proactive (Level II) are not included in this section because they are, by definition, not intentional communication. Students that function primarily in these levels do send meaningful messages to others. They, however, lack intentionality, the willful behavior of including another person in the act. For messages to be understood at the reactive and preactive levels, there must be a receiver present who is alert to the behavior and able to interpret its meaning. Preintentional communicative behaviors are considered in the section on behavioral observation (page 29). Forms of concrete symbolic and abstract symbolic communication (Levels V and VI) are reviewed later in this section.

INDIVIDUAL SKILL GOALS PRIORITY RATING SHEET

Student Name Emily G. Evaluator A. F. Date 9/23/87

SCORING KEY:
0. No or never
1. Rarely
2. Maybe or sometimes
3. Usually
4. Ues or always
NA Not Applicable

	SKILLS/GOALS							
	Use fast food restaurant	Purchase Groceries	Walk to school	Shower	Identify objects	Ride 3 wheel Bike	Bench work Task	Fold Towels
1. Can student use skill in immediate environment	4	4	4	4	2	2	0	
2. How often will skill be encountered by student in environment	3	3	4	4	3	2	3 classroom	
3. Can skill be worked on across several environments/situations	4	4	4	1	3	2	2	
4. Can skill be taught naturally using realistic materials in realistic settings	4	4	4	4	3	4	3	
5. Does skill produce immediate consequences for the student	4	4	4	2	1	4	2	
6. Does skill build on existing strengths or skills	3	3	3	0	0	2	3	
7. Does skill facilitate development in other domains	2	2	4	1	3	2	3	
8. Does student have prerequisites for the skill	Irrelevant for this age							
9. Does this skill remediate an identified problem	4	2	0	4	2	4	2	
10. Does skill help student to compensate for sensory or motor deprivation	0	0	0	0	0	0	0	
11. Is skill a prerequisite for later learning	N/A	N/A	3	N/A	3	—	4	
12. Will student be more independent as a result of learning this skill	4	4	4	4	0	4	2	
13. Will this skill facilitate movement to a less restrictive environment or educational placement	4	4	4	3	0	2	3	
14. Will this skill improve quality of life - choice, power, independence	4	4	4	4	0	4	3	
15. Is this skill necessary for medical or physical reasons	0	0	0	3	0	3 exercise	0	
16. Is this skill critical for social acceptance	4	4	4	3	2	1	3	
17. Is this skill fun for the student	4	2	3	1	1	4	2	
18. Is this skill age-appropriate	4	4	4	4	2	4	4	
1 - (72) high to (0) low priority	52	48	53	42	25	44	39	

Linda Cook Johnson, Linfield State Hospital and Training Center, 1982, Linfield, Kansas

Figure 3: A students goals can be rated and prioritized according to functionality by using an "Individual Skill Goals Priority Rating Sheet."

Level III Primitive Intentional Communication Behaviors

Form	Description	Example
Gross Body Movement	Any general body movement that expresses a communicative message. There is no intentional contact with another person.	General statement to obtain more food or drink.
Specific Body Movement	A body movement of a specific part of the body that relates to the communicative message.	Lift foot to have receiver put on shoe.
Vocalization	Sounds, not words, made by student to express wants.	Student vocalizes when another child stops playing with him or student vocalizes when another child holds up a toy and asks "Do you want this?"
Push Away Object	The student pushes an unliked item away in order to communicate protest or rejection of that item.	When a teacher gives a magazine to the student, it is pushed away.
Touch Person Or Object	The student reaches for or touches an adult or object in order to indicate desires.	When the teacher holds up a cassette tape and a magazine, the student looks at the teacher and touches the cassette tape. When sitting in activity with peers, student reaches and holds arm of neighboring child meaning "Pay attention to me."
Specific Eye Gaze	The student looks at a specific object in order to indicate desires/choice. At this level there is a single orientation to people or objects.	Student scans bubbles and wind-up toy and then looks at the bubbles to make choice.
Manipulating Person	Student hand guides the listener toward a desired object or away from an undesired one.	Student guides teacher's hand to door knob. Meaning "Help open" or "I want to go out." When mother assists child with combing hair, the child takes her hand and pushes it away.

Level IV Conventional Intentional Communication Behaviors

Form	Description	Example
Extend/Give Object	An object is handed to or extended while looking at the listener. At this level, the student begins to show a dual orientation between the listener and the object.	Student gives plate to teacher meaning "I want more."
Extend Hand/ Point	The student extends hand or finger toward activity, object or person and looks at the listener. This is different from touch/reach above in that the student has a dual orientation between the event and the listener and does not actually touch the object.	Student points to school bus out the window and looks at the teacher meaning "I want to go." Given three choices, the student points to one and looks at the teacher.
Eye Gaze	Student looks at object, looks at listener, looks at object in order to make a choice.	During dinner, child looks at mother, looks at dessert and looks back at mother.
Gestures	Student uses a conventional gesture while looking at the listener.	Student extends hand, palm up, meaning "Give me," waves "Hi" or "Bye."
Gestures Yes/No	Student shakes head "Yes" or "No" to answer a question or for rejection/confirmation.	When asked "Do you want to go to the store?" Student's head nods "Yes."

Summary of Communicative Functions

The purpose of an individual's communicative act is referred to as the function or intent. When determining the function of a message, the listener needs to attend to the context and what forms the student is using (e.g., facial expression, body position, etc.) Does this form change after the listener responds to it? If yes, how does it change? This may indicate that the student is relaying another message or that the function is different (see Level I: Reflective Behavior for an example of this). The reader is cautioned regarding a tendency to "over interpret" the intent of a student's message. A receiver must be included in order for any behavior to be communicative.

Function	*Description*
Protest	*Behaviors that express general rejection of an object or event.*
Request More	*Student indicates that activity or item be continued. Student has recently been engaged in activity.*
Requests Food	*A behavior that directs the listener to provide food or drink to the student, i.e., extend cup.*
Requests Object	*A behavior that directs the listener to provide an object to the student, i.e., manipulates adult.*
Requests Action	*A behavior that directs the listener to provide an event or activity to the student, i.e., help open, i.e., point to locked cabinet.*
Request Attention	*Behaviors are used to initiate a social interaction such as calling or requesting attention to oneself, i.e., taps adult.*
Greetings	*Student demonstrates behaviors that are social such as waves "hi" or "bye."*
Offer	*The student offers an object to the listener without receiving anything in return, i.e., sharing a snack.*
Label/Comment	*Student makes a comment or shows something to the listener, i.e., gesture mime, points to visitor entering classroom.*
Answer/Reply	*Student responds to listeners questions, i.e., point, head nod.*
Questions	*Student requests information from the listener, i.e., student repetitively points to picture and looks at teacher.*
Confirmation	*Behaviors that convey agreement or willingness to engage in event or activity, i.e., head nods yes.*

The above-listed functions are not exhaustive, but do represent messages that can be relayed without the use of language.

CHAPTER 4: ASSESSMENT GUIDELINES AND INSTRUMENTS

Introduction

This chapter of the manual focuses on the actual completion of the assessment. The process is outlined in the Assessment Instrument Flowchart (Figure 4). By following the flowchart, an evaluator can determine which instrument to use and assure a complete assessment of all communication aspects (content, form and function). Guidelines for planning and conducting an assessment of communicative behaviors is presented. They will maximize the quality and quantity of information gathered.

The remainder of this section describes instruments themselves. Each of the assessment options includes directions to the evaluator and a portion of an already completed assessment. (Blank data sheets are included as attachments.) Table 1 summarizes the types of information each instrument was designed to assess.

All instruments are criterion referenced and can be used to obtain specific information regarding a student's communication abilities. Each has a different focus and strength for the various ability or communication levels. Table 1 outlines the type of information each instrument was designed to collect along with the level of communication it most appropriately assesses. While "content" information can be gathered through any data collection system, behavioral observation is the only one that specifically addressed environmental antecedents.

Appendix B (p 66) includes summaries of six additional communication assessment instruments currently available. These instruments can be used to supplement any of the instruments included in this manual. They may be especially useful for students function at the Reactive (Level I) and Proactive (Level II) communication levels.

Finally, the summary form "Determining Modes of Communication" (Attachment 8) is included to assist in the consolidation of information.

Assessment Considerations and Guidelines

To obtain the most representative picture possible of an individual's current functioning level, several considerations are necessary. McLean and Snyder-McLean (1978) indicate that "we are interested not so much in how well the child points to or names a preselected set of pictures, but rather how well he actually functions within his natural environment" (p 127). This means observations should occur in an environment that is comfortable and familiar to the student. An assessment in the home, in a play area, or in the classroom will yield much more valid information than one conducted in an unfamiliar or artificial environment. Further, since communicative abilities are the focus, other people and their interactions with the student are

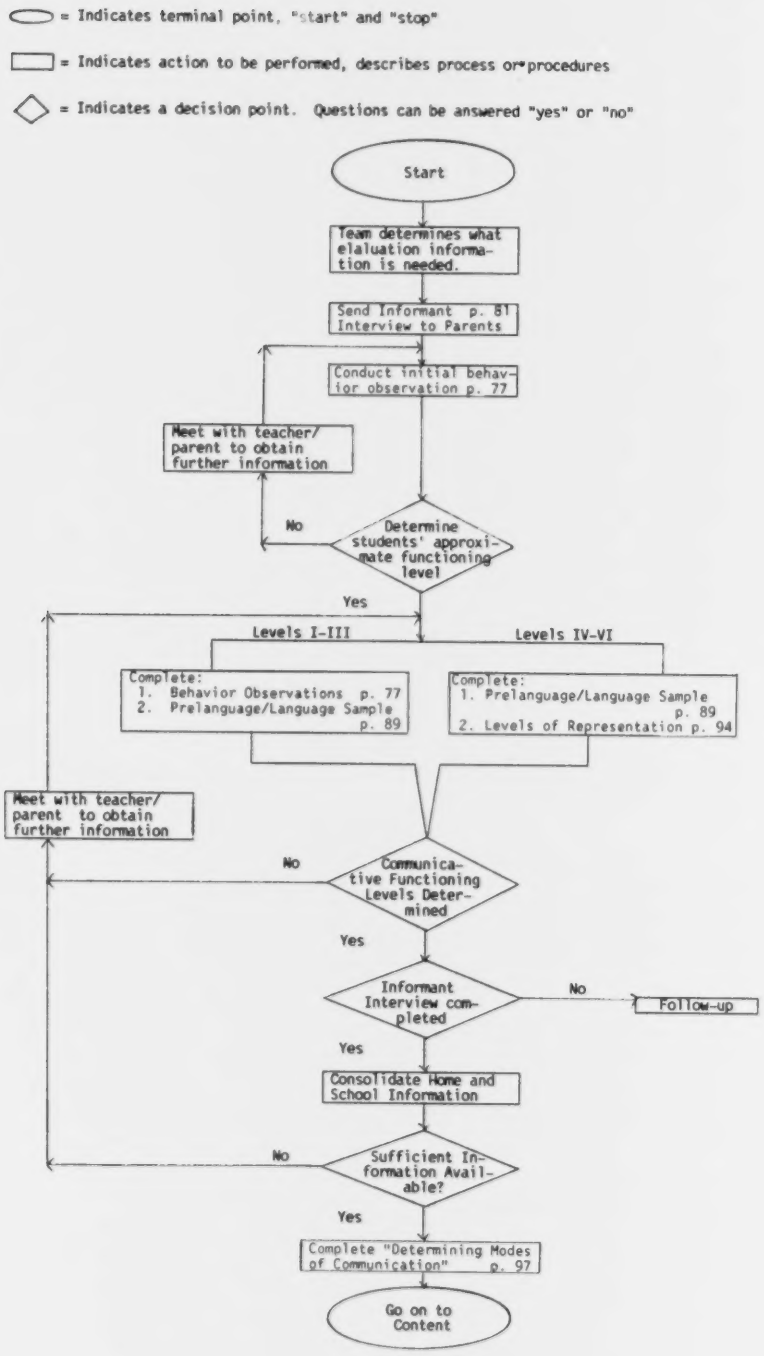
= Indicates terminal point, "start" and "stop"
= Indicates action to be performed, describes process or procedures
= Indicates a decision point. Questions can be answered "yes" or "no"
Start
Team determines what elaluation information is needed.
Send Informant p. 81 Interview to Parents
Conduct initial behavior observation p. 77
Meet with teacher/ parent to obtain further information
No
Determine students' approximate functioning level
Yes
Levels I-III
Levels IV-VI
Complete:
1. Behavior Observations p. 77
2. Prelanguage/Language Sample p. 89
Complete:
1. Prelanguage/Language Sample p. 89
2. Levels of Representation p. 94
Meet with teacher/ parent to obtain further information
No
Communicative Functioning Levels Determined
Yes
Informant Interview completed
No
Follow-up
Yes
Consolidate Home and School Information
No
Sufficient Information Available?
Yes
Complete "Determining Modes of Communication" p. 97
Go on to Content

Figure 4: Flowchart used to determine which assess instrument to use when completing the communication evaluation.

TABLE 1: Assessment Instruments

Instrument	Expressive Communication Aspects: Content	Form	Function	Assists in Determination of Receptive Mode	Communication level Addressed (see page 28)	Specific Information
Behavioral Observation from Cartwright & Cartwright, 1984, and Skowron-Gooch	x	x	x	x	Levels I-VI to obtain specific information for Levels I & II For Levels III-VI additional information should be obtained	Screening determines general picture of a student's abilities Designed for use in the natural environment
Informant Interview by Lapidus, 1985	x	x	x	Interviewer can obtain this information if face-to-face Not included if completed by mail	Interview form itself can be used for Levels I-VI Form and Function chart for Levels III-VI	Assesses communication in the home environment Other assessment information (i.e., from behavioral observations) can also be summarized on the Form and Function Chart
Prelanguage/ Language Communication Sample by Stremel-Campbell, et al., 1984		x	x		Levels III-VI	Also includes type of prompt needed to support use of language Designed for use in the natural environment
Levels of Representation from Green & Winthrop, 1986		x			Levels V-VI	Specifically assists with development of augmentative communication systems by determining the students ability to use symbols, objects or pictures

equally important. In the introduction to the Callier-Azusa Scale, Stillman and Battle (1985) indicate that the context in which assessments take place may affect assessment results.

> *Context means not only the physical setting, but also the interactive style of the adult partner, and the demands and constraints of the activity in which the child participates . . . (The) partner's skill in soliciting, sustaining, initiating, and responding in interactions and in devising activities (will) likely lead to the optimal demonstration of a child's communicative ability. It is therefore essential that an adequate opportunity be provided to observe the individual in a variety of physical and interpersonal contexts. (p II)*

It is expected that some facilitation will be necessary within the observation setting. In these cases, a person familiar with the student (teacher, sibling or parent) should set up the opportunities for communication. The following guidelines can be used when planning and collecting observation data.

Guidelines for Planning Assessment of Communicative Behaviors

A. Meet with the team and parents to:

1. Explain the objectives of the observations.
2. Obtain general information regarding student ability levels.
3. If they are participating in the evaluation, explain ways to present opportunities for communication. The role of the adult is to evoke communication without structuring the form and content of the child's language. (See Section C.5.)
4. Find out what is motivating; i.e., food/object/activity.
5. Know student's sensory and motor abilities.
6. Know relevant medical information; i.e., seizure activity or effects of medication.
7. Plan at least three 20 to 30 minute observations in different settings and situations.

B. Setting

1. Choose assessment settings that are as natural as possible; i.e., home, classroom, playroom.

2. Arrive at observation settings (home, school) to allow time to determine objects present that can be used to evoke different communicative behaviors.

3. Include some items with which students are already familiar. When all novel objects are used, students' lack of experience with test object may limit their interactions with it.

4. For younger students, rooms should contain a variety of inviting toys, such as objects/toys that "do something" when the student turns a knob or pulls a string, and unstructured toys like cars, noisemakers, blocks, dolls. For older adolescents tape recorders, water games, etc., can be used.

5. Opportunities for gross motor activities; i.e., a soccer ball or jogging tramp for older students and playground equipment or a rocking horse for younger students, will allow for changing activity levels during the observation.

C. Conducting the Assessment

1. Allow a "warm-up" period before data is collected.

2. Alternate "not so enjoyable" with "enjoyable" activities.

3. Reinforce for cooperative behavior.

4. Follow the child's lead.

5. It may be necessary to set up situations to evoke specific language functions. At times having food or objects "available" will not be sufficient. The evaluator may need to prompt or otherwise call attention to the item. Try eliciting the same functions by using different objects. A complete evaluation will include communication behaviors that are not generalized need prompts, etc. These emerging behaviors will become communication programs. Your selection of set-up activities will be determined by the students' general functioning level, age and setting. Some possible "set-ups" are:

   a. Have a desired item or food within view but out of reach so that the child will need to <u>request object</u> or <u>request food</u>.

   b. Have a jar or box that is too difficult for the child to open with something desirable inside so that the child will need to <u>request assistance</u>. Later on, give the child the difficult-to-open jar and turn away so that the child will need to <u>request attention</u> and then <u>request assistance</u>.

   c. At some point mumble so that the child will need to <u>request clarification</u>.

d. Request that the child do something disliked or give the child a disliked object so that the child will protest. If the teacher suspects that this will trigger an outburst of aggressive, tantrum, or self-injurious behavior, this should be omitted.

e. Greet the child to see if the child responds to greeting.

f. Bring in an unusual object (e.g., a gigantic pencil) or perform an anomalous action (e.g., putting a doll's shoe on the doll's hand) to see if the child comments.

(Lapidus, 1985, p 18)

6. Second and third observations should note whether the same behaviors are:

   a. Demonstrated in a variety of settings.

   b. Demonstrated with a variety of people.

   c. Observed in the absence of prompting and manipulation.

   d. Observed as a response to an adult versus a peer or spontaneously initiated.

7. When an individual demonstrates specific strength in using particular form or functions, try "holding out" to determine their ability to adapt; i.e., if a child has adequate pointing skills to make choices, give him an object other than the one chosen to see if he can communicate a protest, or ask "Is this what you want?" in order to elicit a yes/no gesture.

8. Nothing is free--always be alert to situations that can be used to evoke communication.

Determining Receptive Modes of Communication

When conducting a communication assessment, it is important to consider how information is going to be presented to the student. One must be assured that the student understands, as much as possible, expectations and events occurring around him or her. In determining the receptive "mode" of communication we are referring to the form of the communicative act by friends, school staff, or family. A major consideration will be the student's sensory status. For example, if a student has very little functional vision, he/she may only be able to see gross gestures, but not the hand shapes necessary to read sign language. Another student's hearing loss may not allow him to hear voice intonation. It may be necessary to use more than one receptive mode with a single student.

Receptive Modes: Speech (or electronic speech output)
Sign language
Conventional gestures
Tactile cues
Object cues
Picture cues

Combinations:

A. Speech and:
   Conventional gestures
   Tactile cues
   Object cues
   Picture cues

B. Total communication[2] and:
   Object cues
   Picture cues

A student's ability to understand the modes described will be determined together with other assessment information. In completing parent/teacher interviews, behavioral observations, communication samples, etc., all aspects of a student's communication abilities will be considered simultaneously. The team will work together to determine the best individual or combination of receptive modes for a student.

Behavioral Observation

Observation is the single most important tool that a teacher has for the purpose of making instructional decisions. It can be used as a screening tool or to gather precise information. Easily employable in unstructured, natural settings, an objective record of a student's behavior will provide the teacher with specific communicative abilities of the student and teacher and functional information regarding the student's natural environment. The recorder is not restricted to a checklist or predetermined set of behaviors that may occur with use of other assessment instruments.

Behavioral observations as described in this section can be used in two ways.[3]

1. As an initial screening to determine general functioning levels of the student.

2. A number of observations (minimum of three) consolidated will assist in determining patterns of student skills and behaviors.

Emphasis in this section is upon anecdotal or narrative recording of a series of events across tasks, settings, and people. They should be factual accounts of specifically observable behaviors.

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2 Total communication refers to the combined use of speech, signs and gestures.

3 For the purposes of this paper, uses of behavior observation are limited to these two options. For further information regarding additional uses, see Cartwright and Cartwright (1974), Developing Observation Skills.

Anecdotal records are best used to record observations of unanticipated behaviors, incidents, or events (Cartwright and Cartwright, 1974). Hence, as a screening tool the recorder can write an account of behaviors observed and use that information to determine the most appropriate assessment instrument. In situations where behavior is predictable, such as a student who exhibits a range of specific prelanguage forms and functions, it may be more appropriate to use other assessment instruments presented in this manual.

When a student has few intentional communicative behaviors, a narrative account will be more sensitive to potential communicative acts. Table 2 lists a number of behaviors that a student may use in a communicative manner. It is important to note here that these same behaviors may be reactive (Level I) and Proactive (Level II). It is in the consolidation of information that patterns can be determined and specific program information developed. The reader is encouraged to reproduce this table on the reverse of their behavioral observation form (attachments 2 or 3) in order to review prior to observations.

This table is not an all-inclusive list of behaviors that might represent communicative responses. As you observe, be alert to any other spontaneous behaviors.

TABLE 2: Observable Communicative Behaviors

- *Increase activity level*
- *Differentiated responses toward novel stimuli*
- *Differentiated responses toward strangers*
- *Pays attention to communicative situation*
- *Vocalizations*
- *Yawning*
- *Facial expressions*
- *Eye gaze*
- *Disengage eye contact*
- *Imitation*
- *Mouth movements*
- *Rhythm of body movements*
- *Turn-taking*
- *Participates in routines*
- *Acts on environment*

Recording Anecdotal Observations

The objective of a behavioral observation is to obtain general information about the student in a given environment. They are particularly useful for analyzing antecedents and consequences to specific behaviors. Patterns of behavior can be obtained and used when making decisions about further assessment, general ability levels, demands of the environment and some specific program information.

There is no specific arrangement for recording forms; its organization representing personal preference, Figures 5 and 6, present a range of possible formats. McCormick and Schiefelbusch (1984) suggest another option of organizing the description into three columns. In the first column, record events that occur before the communicative act (antecedents); in the second column, the child's specific behavior; in the third column, the effect of the behavior or communication (consequence).

Following are eight basic rules for collecting data:

1. An interaction between the peer, teacher, or parent and the child is critical and behaviors of both parties should be noted.

2. No specific form is necessary. Any piece of paper will do as long as it includes:

   a. Name of the child
   b. Name of the observer
   c. Date
   d. Beginning and ending time
   e. Setting/activity
   f. Context: the bulk of information will be in recording situations and specific behaviors that are elicited. This includes prompts, specific objects, etc.

3. Be factual. Include only specifically observable events. Interpretation will bias the record.

4. Be purposeful. When many behaviors occur simultaneously, prioritize according to specific objectives of the observation--in this case communicative acts.

5. Be systematic. Use a format that will easily be consolidated into comprehensive summaries.

6. Include different activities, settings, and adults/peers present.

7. After the initial observation, you may wish to expand and elicit some specific behavior. This will give information regarding the student's ability to use skills in different contexts (settings and people), utilize skills without additional cues, or use behaviors in generalized formats. It will also allow you to determine the presence of isolated "splinter" skills.

8. Interpretation of narrative information should use a minimum of three observations. One way to consolidate information is to circle all communicative acts in red ink and count the frequency of their occurrence. A form and function checklist such as those in this manual can be used to determine how a student is using specific behaviors.

Observation No. 3

Observer S.M. Date 9/30/87

Time: from 9:00A to 9:20A

Learner's Name Andy V.

Age 7 Activity Free Play

Describe, in behavioral terms, the setting within which the activity typically takes place.

Corner of classroom. 3 other students (K.B., B.W., B.F.) in play area. All students on floor. Andy in corner chair. Aide supervising activities.

List all the behaviors displayed by the learner during a ten-minute period in which he/she is engaged (or supposed to be engaged) in the chosen activity. If the same behavior occurs more than once, indicate this by making tallies in the frequency column.

Description of Behavior	Frequency
K.B. puts toy on lap tray	IIII
Andy knocks off and giggle (repeats)	
Aide pushes spinner -- Andy watches	
" puts spinner on tray " "	III
Screams	++++ I
BW & BF approach, pat Andy's arm and talk to him. Andy quiets/general activity level down and increases as they walk away	
Andy picks up rubber animal -- bangs on lap tray -- mouths	

Figure 5: Sample behavioral observation form can be used to tabulate frequency of specific behaviors.

Student R.B Date 10/15/87

Teacher Mrs. Kimball (K) Consultant A.G

Aide JJ & MAS

Time	Activity/Materials	What Happened
8:10	Arrive/Unload bus	JJ brings into room & takes RB to closet assists with sweater off. Other students enter -- R.B. watches (K): "Hey R, How are you today?" R: smiles and eye contact R to desk -- alone for approx. 5 min. R: "Aaah" (3x) JJ approach -- "What do you want?"
		R looks at photo (bathroom) taped to corner of desk.
8:40	Class Role/ Lunch/ Calendar Large Group Activity	Returns from bathroom - joins group in progress (K) greets -- explains day's activities RB doesn't participate in group. Attention to teacher off and on.
8:50	Library	MAS shows R photo of library and photo of lunchroom. R looks at library photo. They go to desk and get book. MAS assists R wave "Bye" as they leave R imitates "I".
		At library R.B. chooses activity (computer) and plays game with switch. Heavy assist from MAS. When finished R. requests more by looking at computer to MAS and back to computer

Figure 6: Sample behavior observation form keeps narrative of events.

Functional Assessment of Language
by D.C. Lapidus, 1985
Informant Interview

The "Informant Interview" (Attachment 4) is a questionnaire designed to be completed by the child's parents, guardians or primary workers if the child lives in a residential facility. The majority of questions probe the various communicative functions that the child's language and behavior serve in environments outside of school. The responses obtained reflect both the functions and forms of the communication devices the child is using (see Figure 7).

The "Informant Interview" may be completed by the clinician who speaks directly with the informants and records the answers and is thus able to clarify responses and elicit all the necessary information. Alternatively, the Informant Interview may be sent home. A follow-up phone call may then be necessary to complete the information sought.

After the "Informant Interview" is completed, the teacher or speech-language pathologist analyzes the interview results by consulting Table 3 entitled Functions Assessed Through the Informant Interview. The table lists the various functions that questions 1-21 are designed to assess. The clinician evaluates the response to each question and determines the form or forms that the individual has used to communicate that particular function. The examiner then refers to the Form and Function Chart (Figure 8) and plots the information by placing a "P" for parent in each of the cells created by the intersection of the forms and functions reportedly evidenced by the child. By plotting the information as in Figure 8, one may obtain a visual picture as to the various forms and functions of communication that the child or adult is reportedly using.

Very frequently, the "Informant Interview" reveals that the child is actually communicating; that is, interacting, quite a bit and is telling us many things in many different ways, albeit nonstandard and possibly idiosyncratic ways. For example, one may be aware and even annoyed that the child perseverates on asking the same question. Yet the function of the child's verbal behavior may be better appreciated when it is realized that he desperately wants to initiate and maintain interaction (function of "request attention") and is at a loss for the appropriate form with which to obtain attention.

Another possible use of the "Informant Interview" is to obtain an approximate frequency count of the various form-function usages. For example, after asking a question to determine if and how the child exhibits a certain function of language, the clinician may ask how frequently the child communicates that particular function in that manner. For example, if the child hits his head to protest, the teacher might ask the parent to estimate how many times a day this might happen.

Reprinted from Lapidus, D. C., 1985. Functional Assessment of Language Communication in Autism. Conference Proceedings, Beyond 1985: Bridging the Service Gaps for Autistic Individuals. Washington, DC: National Society for Children and Adults With Autism.

ASSESSMENT OF CONTENT, FORM, AND USE
Informant Interview
D. C. Lapidus

Child's Name: Kathy

Teacher's Name: Mr. McM.

Completed by: Mrs. H.

Date: 9/29/87 Relationship to Child: mother

The following questions were designed to obtain information on your child's communication abilities at home and in settings other than school. This information will be used to develop the most appropriate communication program for your child.

The person who is most familiar with the child should respond. Please answer each question thoroughly, and do not hesitate to add additional information wherever you want.

Thank you.

1. What does your child do to let you know that he or she wants:

   a. Something to eat? Give examples: when in sight she reaches & grabs. Sometimes uses "eat" sign.

   b. A certain object? Give examples: reaches for the toy only when its in view

   c. You to do something? Give examples: _____

   d. More of something? Give examples: reaches for it or cries when I take it away.

   e. A particular action to stop? Give examples: her body becomes rigid and stiff. Sometimes hits herself or pulls my hair.

   f. To go to the bathroom? Give examples: she doesn't. I just take her at certain times.

(Lapidus, 1985)

Child's Name: Kathy

2. Does your child communicate in some way that assistance is needed (for example, presenting shoe that needs to be tied)? No
   If yes, what does he or she do? _____

3. Does your child do things for the purpose of getting attention? Yes
   If yes, what does he or she do? makes loud noises

4. Does your child want affection? Yes If yes, what does he or she do to let you know that affection is desired?
   she looks at me and smiles when I hug her

5. Does your child enjoy tickling, roughhousing, or childish games like peek-a-boo or pat-a-cake? Please specify: _____

   Does your child show you that he or she wants to play? _____

   If yes, how? She covers her own eyes when she wants to play peek-a-boo

6. Does your child appear to need permission to do simple activities (for example, hold his or her clothes in the morning and look at you until you say "get dressed," or give him or her a look? No Please specify when your child seems to need permission and what you do to get him/her going.

7. Does your child respond to:

   a. Directions? Sometimes

   b. Questions that begin with what, who, where, when, how or why? No
      If yes, how does your child respond, and to which questions? _____

   c. Questions that call for a yes or no answer? No If yes, how does your child respond? _____

(Lapidus, 1985)

TABLE 3

Functions Assessed Through Informant Interview

Question Number		Function Assessed
1.	a.	request for food
	b.	request for object
	c.	request for action
	d.	request for food, object, or action (depending on examples given)
	e.	request for action or protest (depending on examples given)
	f.	request for bathroom
2.		request for assistance
3.		request for attention
4.		request for affection
5.		request for social routine
6.		request for permission
7.	a.	response to direction
	b.	response to "wh" question
	c.	response to yes/no question
8.		protest
9.		initiation of greeting and response to greeting
10.		expression of feelings/exclamatory
11.		performative: category of other (#31)
12.		reactive: category of Other (#31)
13.		request for information
14.		request for clarification
15.		politeness markers
16.	a.	comment on self
	b.	comment on other person
	c.	comment on object or action
17.		comment on object
18.		noninteractive label or comment
19.		giving information
20.		self-regulatory/rehearsal
21.		nonfocused

Figure 7: Each question on the Informant Interview measures the functions listed in Table 3.

Assessment of Content, Form, & Use
Sample of Language & Communicative
Nonverbal Behavior: Form & Function Chart

Child's Name: Kathy

Date(s) of Sample: 8/29

Date Form Completed: 8/30

P = Parent Informant

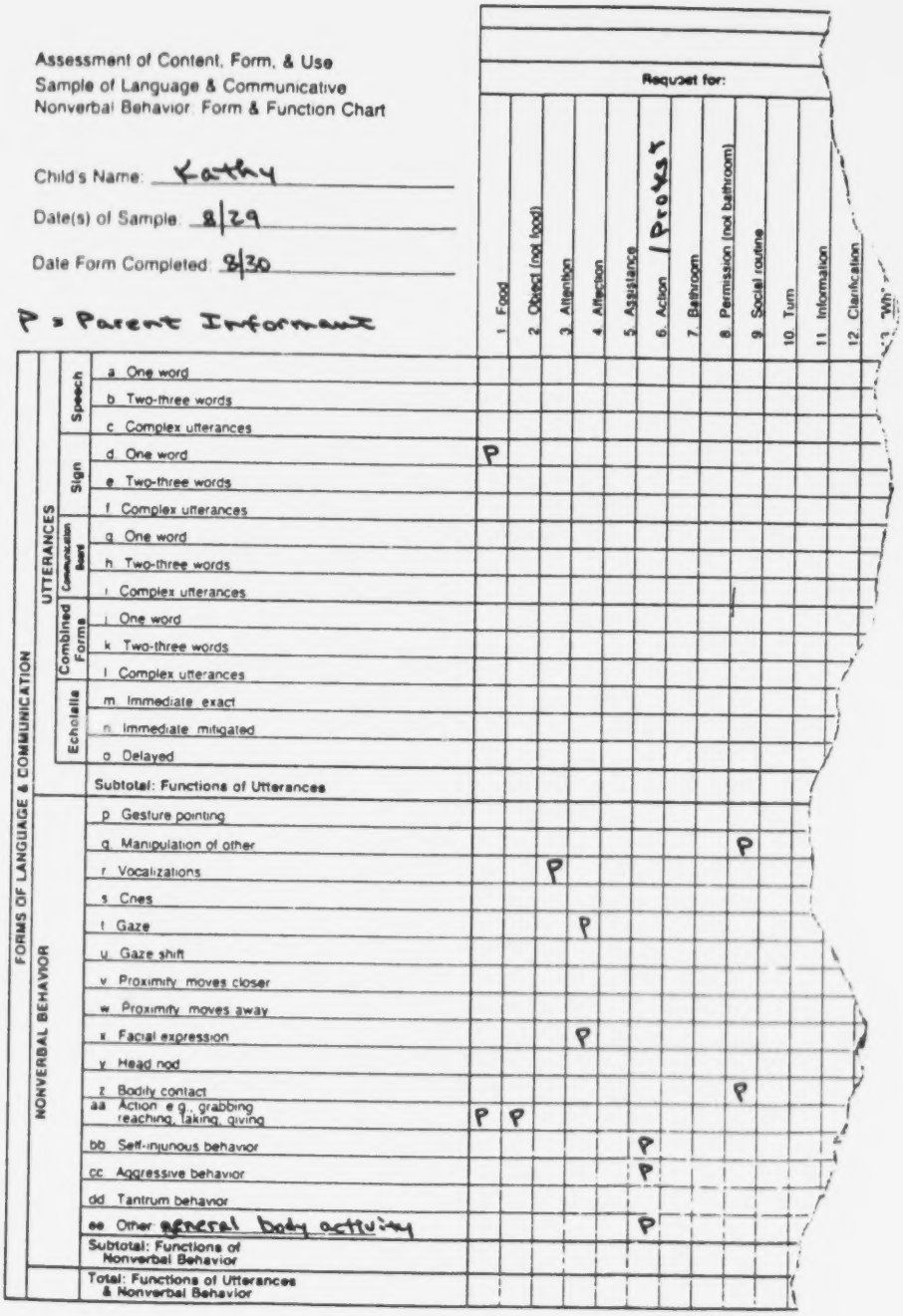


Figure 8: Parent responses "P" form the Informant Interview are plotted on the form and function chart.

Prelanguage/Language Communication Sample

Stremel-Campbell, Johnson-Dorn, Clark-Guida & Udell, Revised 6/86

I. PURPOSE

This assessment (Attachment 6) determines the frequency and type of communication skills used in a continuous 10-minute sample. The language sample spans the skill range from prelanguage through formal language.

These 10-minute continuous samples are set up to go along with different levels of communication development and are used as ongoing assessments for the purpose of:

- Assessing implementation of opportunities to communicate
- Tracking progress in communication skills
- Writing IEP objectives specific to communication or language
- Developing programs/teaching strategies
- Assessing generalization to new settings

II. DIRECTIONS AND EXPLANATIONS

Situational Information

Prelanguage/Language Communication Sample (10 minutes)

Name_____ Observer_____ Ratio-Adult/Students_____

Date_____ Setting and Activity_____

Prior to the observation, record the following information:

1. Student's name

2. Date of observation

3. Observer's name

4. Ratio-adult/students

   Record the number of adults involved with the students in the particular activity you are observing. For example, if the child is being observed during an activity involving the entire class with one teacher, the adult/student ratio might be 1:5. One-on-one activities between students would be recorded as 1:1.

5. Setting and Activity

Note the location of the activity and record this after the heading "Setting and Activity." Examples of settings may include: classroom, cafeteria, gym, playground, or certain community settings where applicable.

Also note the activity taking place in the particular setting. If the setting is the classroom, the activity might be: peer interaction, snack time, leisure activity, or the particular program being implemented such as making choices, cause and effect, or requesting more.

The purpose of recording items 4 and 5 (Ratio-Adults/Students and Setting and Activity) is to help the teacher decide if prelanguage and language will be facilitated in the environment. The teacher recording these two factors can ask himself/herself:

- Are there too many adults interacting with the student? If there are too many adults interacting, the student may never need to communicate since everything is done for him/her.

- Are there too few adults for the particular activity? The student may attempt to use language or prelanguage but she/he is not noticed or not reinforced.

- Are the adults, to their full ability, encouraging students to communicate?

- Do the setting and activity naturally provide opportunities for communication? Frequent language responses may not be appropriate or encouraged in such settings and activities as academic instruction time in the classroom, the library or during school assemblies. Communication should be encouraged at social times such as recess, lunch, snack, and break time.

Language Modality: Sign_____ Communication Board_____

If the student uses manual communication or a communication board as the primary modality place a check in the appropriate box. A student might use both sign and speech in which case the sign box is checked to show that the student uses two modalities.

Observational Data

Communication development is broken down into ten levels. Responses in the Prelanguage/Language Communication Sample are recorded in three different areas in Levels III through VIII. The areas include Prelanguage, Emerging Language, and Language.

A prelanguage/language response is defined as a communication response only if the student looks at the speaker (or orients toward the speaker for blind students) while demonstrating one of the responses. Also, a communication act needs a sender, a receiver, and some message (a

referent). The only exception to the above rule is if the teacher is training the students touch/reach or manipulate person communication response and is training at the physical assist stage, the student may not have a look response yet but the communication response can be recorded and the physical assist will be recorded on the assessment under Type.

If, as the observer, you can put words to the student's action, it is most likely prelanguage/language and should be recorded. Examples will be given describing each of the prelanguage/language skills.

Prelanguage

Levels III and IV characterize prelanguage behavior. The behaviors must have criteria for intentionality which include visual attention, orientation or some regard for the listener. They are nonlinguistic means of signaling intent through objects/events and other persons. Examples of prelanguage behaviors include use of simple gestures, nodding/shaking head for yes/no, extending hand, touching a person or object, or using body movement.

LEVEL III: Primitive Intentional

Body Movement/Facial Gestures

Any movement that expresses communicative intent but does not make contact with a person. Example:

A general (gross) expression of excitement for a food activity or toy

Lift leg to put pants on

Touch/Reach

Check touch/reach if the student touches or reaches for an object or person while looking at or orienting to the listener and referring to an object, person, or event. Severely physically disabled students may use their head or face to touch rather than their hands. Examples:

Student turns head to touch cheek to teacher's hand to request more ice cream.

When the teacher holds up a cookie and a chip, the student reaches for the cookie. Meaning: "I choose the cookie."

Student touches milk carton at lunch and looks at teacher. Meaning: "May I have some milk?"

This is to be filled in by the observer when needed and individualized for the particular student. Typical examples are:

Eye-gaze: *The student must scan two objects and then look at one for at least three seconds. Example: The teacher holds up a cookie and a cup of juice. The student scans both objects and then looks at the cup for at least three seconds. Meaning: "I want juice."*

Vocalize: Vocalizations are not approximations of words but rather sounds made by a student to express desire or protest. "Vocalization" is checked only if the child looks at the listener and only if there is a message. Examples:

a. *Child vocalizes "uh!" in protest when a pleasurable activity such as bouncing is stopped.*

b. *Child says "ah" when teacher holds up a cookie. Meaning: "I want the cookie."*

Manipulate Person

Check "Manipulate Person" if student guides the listener's hand or arm to communicate a desire or protest. Examples:

Student pushes listener's hand away when offered a cracker.

Student pulls listener's arm for assistance in a task.

Student takes listener's hand and moves it to unopened bag of chips. Meaning: "Help open chips."

LEVEL IV: Conventional Intentional

Extend Object

Check "Extend Object" if a student extends, gives, shows, or manipulates an object while looking at the listener. This also includes the pushing away of objects as a protest. Examples:

Student extends a cup toward the teacher. Meaning: "I want more juice."

Student hands listener a wind up toy. Meaning: "Will you wind this toy?"

Student hands bowl to listener when he sees a box of cereal. Meaning: "I want some cereal."

Point

Check "Point" if the student points toward an object, person, or area while looking at the listener. Some students with severe physical handicaps can use a controlled eye point as a point response. Check "Point" if he is given a

choice of three or more objects and looks at one for approximately three seconds to request or comment. Examples:

Student points to self when the teacher asks "Whose turn is it?"

A severely physically handicapped child is presented with three photographs and asked "Where is Mama?" The child scans the pictures and looks at "Mama" for at least three seconds.

Teacher offers chips and a cookie and asks student "What do you want?" Student points to cookie.

Gesture

Check Gesture if student uses a gesture while looking at the listener. Examples:

Student moves arm toward self for "come here."

Student puts hand on chest for "mine."

Student taps chair for "sit here."

Student extends hand (palm up) for "give to me."

Yes/No

Check "Yes/No" if student nods or shakes head for yes/no. Examples:

As an answer to a question.

To indicate a rejection or confirmation.

Emerging Language

Most children use words (and play) as their first symbolic behavior but the first representations used by students with severe sensory and cognitive impairments may not be abstract speech words or signs. Rather, more concrete objects, object representations or pictures may need to be trained before the student is able to understand and use more abstract symbols. The student may associate objects or pictures as signals to stand for a routine, to announce anticipation of a routine or interaction, or to designate actions by himself or others. First words (or symbols) refer to foods, people, toys (things that move or change). Initial vocabulary can consist of more than teaching nouns.

LEVEL V: Concrete Symbolic

Object Representation

Check "Object Representation" if the student points to or extends a miniature object, a part of an object, or a representation of an object. Examples:

Student extends a miniature cola can to teacher. Meaning: "I want coke."

Student extends to a piece of carpet indicating desire to get on the floor.

Student extends a bubble wand indicating "Want more bubbles."

Pictures

Rules for "Pictures" are the same as "Object Representation" but with the use of photographs, images, or line drawings rather than objects.

Language

Level VI is characterized by behaviors that refer to 1:1 correspondence between an object and symbol (word or sign). One word (sign) is used for one function. Behaviors are true symbols but used in context. The referents are visible and part of familiar routines. Level VII is characterized by language that characterizes persons, objects, and events with decreased contextural support. Words are initially tied to the context and gradually used outside of the routines or context. Two symbols are combined to express different meanings based on the environmental context.

LEVEL VI: Abstract Symbolic

One Word Object Present

Check "One Word/Object Present" if the child uses a one-word verbal utterance (or sign) to refer to an object he either directly sees or feels, or an activity he is directly engaged in. Example:

Student signs "coke" when offered a choice between coke or chips.

Student says or signs "eat" when he smells popcorn being popped.

Student says "Carol" to get attention or assistance.

LEVEL VII: Symbolic Language

One Word Object Not Present

Check "One Word/Object Not Present" if the child uses a one-word verbal utterance to refer to an object he cannot actually view or feel, or activity

he is not directly engaged in. The student is distanced from the object or activity. Example:

Student says or signs "drink." Meaning: "I am thirsty."

LEVEL VIII

2+ Utterances

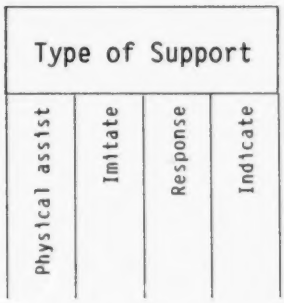
Check "2+ Utterances" if the student uses a verbal utterance or sign consisting of two or more words without a long pause. Examples:

"Want cracker"

"Help me"

"Want more milk"

Type of Prelanguage or Language



Type of Support

The "Type" category refers to the type of language utterances and prelanguage behaviors used by the student.

There are four types of uses recorded on the assessment:

Physical Assist - The teacher physically assists the student to use either a prelanguage response or a signed response.

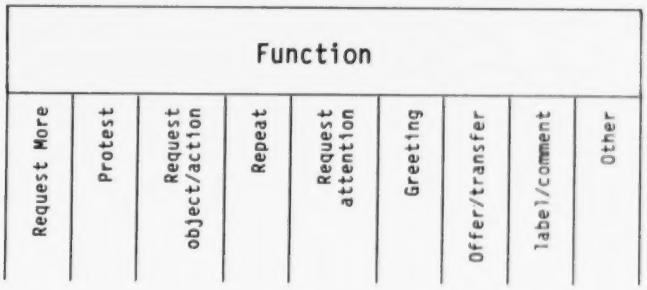
Imitate - The student imitates a model (sign or speech) or any part of the model. The model may not be presented as a model by the other person.

Response - The student responds to a question or demand for verbalization. Any utterance that proceeds a direct cue requiring a response. These include "wh" questions, yes/no responses, "What do you want?" "Do you want _____?" or a demand for a verbalization, "Tell me what you want." or a closure cue, "You need a (student response)."

Initiate - The student initiates the communication. A question, demand for verbalization, or sentence closure cue does not precede an initiated response. If the teacher holds up an object but does not use a direct verbal cue, place a slash ("/") in the Initiate column.

Record a slash ("/") in appropriate "Type" category after every prelanguage or language communication.

Function



Under the column labeled "Function" record the purpose of the communication response. The context, gestures, and intonation will be taken into account to determine the purpose of the communication utterance or how you would have responded to the student's prelanguage/language behavior.

Request more - A student requests an item or activity that was previously given to him or that he just previously received. A free trial is provided or the student has to have been previously engaged in the activity. This is always recorded under "Response" under "Type."

Protest - The student demonstrates a "Protest" function if his response can be understood by the listener as meaning no, "I do not want more." The response must be a prelanguage behavior. Crying and tantrumming are not recorded.

Request object/action - The student demonstrates a request object/action if the function is directly related to obtaining or selecting an object or activity. Such requests as "help" and "open" are recorded in this section. "It's my turn" is recorded here and in "Initiate" under "Type."

Repeat - Any imitation or modeling of teacher or listener is recorded as a "repeat."

Request attention - The student demonstrates a "request attention" function if the response is directly related to gaining a person's attention. Examples are calling and requesting attention to oneself.

Greeting - The student demonstrates a greeting if the function is social such as a greeting/farewell gesture--waving hand or signs or says hello, goodbye. Social utterances such as "please," "thank you," "welcome" are also recorded under "greeting."

Offer/transfer - The student offers an object and the listener accepts. The student gets nothing in return except verbal feedback such as "thank you." An example would be giving a peer a cookie at snack time.

Label/comment - The student simply makes a declarative comment or points out something to the listener. An example is "It's your turn," "That's mine."

Other - Questions, teasing, exclamations, requesting information, etc.

Meaning

Record the specific meaning or message of the communication--what the child is communicating. If the child uses a language utterance, record the actual word(s).*

Figure 9 displays the prelanguage/language sample as portrayed in the following communicative exchange.

Communication Examples:

1. Teacher asks "What do you want?" Student reaches for cup.
2. Teacher says "Sign drink" and physically assists student. Sign is palm to mouth, not the formal sign.
3. Student gives cup to teacher for "more."
4. Teacher asks "Do you want more?" Student takes the teacher's hand and moves it toward the pitcher.
5. Teacher gives student some cheese. Student makes face.
6. Teacher says "You don't want cheese" and physically assists student in pushing it away.

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* Reprinted from: Stremel-Campbell, K., Johnson-Dorn, N., Clark-Guida, J., & Udell, T. 1984. Communication Curriculum, Teaching Research Project for Children and Youth with Severe Handicaps: Monmouth, Oregon.

7. Teacher pours juice and says "You want drink? Sign drink." Student reaches for cup.

8. Teacher repeats cue and physically assists student with "drink" sign.

Note: As the communication sample is completed, student ability patterns develop. In this example the trainer may want to shift emphasis from teaching traditional signs to shaping conventional gestures, e.g., turning the reach into a point.

PRELANGUAGE/LANGUAGE COMMUNICATION SAMPLE (10 Minute)

Name Joseph Observer A.G. Ratio Adult/Students 3:1 Language Modality: Sign X

Date 10.01.87 Setting and Activity Snack Time / Classroom Communication Board ☐

Level III				Level IV				Level V		Level VI	Level VII	Level VIII	Type of Support				Function									Meaning
Body movement/ Facial Gestures	Touch/Reach		Manipulation Person	Extended object	Point	Gesture	yes/no	Object representation	Pictures	One word (object present)	One word (obj. not present)	2 + utterances	Physical assist	Imitate	Response	Initiate	Request more	Protest	Request object/action	Repeat	Request attention	Greeting	Offer/ transfer	Label/ comment	Other	
	✓														✓				✓							1) want drink
										✓			✓						✓							2) " "
																✓	✓									3) more drink
			✓												✓		✓									4) " "
✓															✓			✓								5) don't want cheese
			✓										✓					✓								6) " " "
	✓														✓				✓							7) want drink
										✓			✓						✓							8) " "

Figure 9: A communication sample notes form, level of support and function.

Determining Representation Skills

It is essential that a measure of the student's ability to use objects and pictures be included as part of the communication assessment. This information can in turn be used to develop a meaningful augmentative communication system. With the development of increasingly complex means of communicating messages, an individual translates anticipation of events and knowledge of the world through representations or symbols.

> . . . We must know whether a child has the basic ability for symbolizing knowledge in some way so that it can be used to refer to certain referents. Thus, we will need to know whether a child can make some knowledge observable through use of a picture or an enactive gesture (stirring to refer to a spoon), or whether he or she can use a totally arbitrary symbol to refer to an entity or an event (dog to refer to the appropriate animal). (McLean and Snyder-McLean, ____, p 222.)

A representational system can include objects, photos, pictures, or abstract symbols. Table 4 presents a continuum of object and picture representations in an easy to difficult sequence. These symbols are used by students that function in Levels V and VI, concrete symbolic and abstract symbolic. In the same way a student may function at several different communicative levels at once, they will also simultaneously use more than one type of symbol. Figure 10 depicts a student's communication board. The board uses a combination of photographs, drawings, and Blissymbols. All pictures are accompanied by the written word.

Levels of Representation

L. Greene and S. Winthrop (1986) have developed "Levels of Representation," as part of "Assessing for an Augmentative Communication System." The entire assessment is included in Attachment 7. Due to limitations in the scope of this manual, this section will review only "Levels of Representation" (the final two pages of Attachment 7).

A student does not need to be functioning in levels V or VI in order to be considered for this assessment. Students will frequently demonstrate scattered ability levels. If the student demonstrates some intentional communication, one should assess object representation. As in all assessments, this instrument needs to be functionally presented to the student. It is not a "tabletop" series of commands. The student's auditory, visual, and motor abilities must be considered and student responses adapted accordingly.

TABLE 4: Sequence for Symbolic Representation

Level V C O N C R E T E	Objects that are actually used as part or all of the task.	a. Entire object that is actually used within the activity; i.e., cup used during mealtime, wind-up toy used during playtime. b. Portion of object that is actually used within the activity. This requires more student experience; i.e., bubble wand, piece of PE mat.
S Y M B O L I C	Symbols of objects or actions that look or sound like the object or action and have matched features between the referent or the symbol.	a. Objects not actually used by the student; i.e., miniature object such as miniature bathtub to represent bath time, an empty cake mix box to represent "cooking time," a rattling candy wrapper to represent snack time. b. Photographs; these can be home or school made, as well as commercially available ones. c. Line drawings; those that are realistic, such as Rhebus, Talking Pictures, Mayer Johrisa, PicSims, etc.
Level VI A B S T R A C T S Y M B.	Arbitrary symbols which represent environmental entities. It does not match the referent or features of the referent.	a. Manual signs (not iconic); i.e., finished. b. Commercial or hand drawn symbols that are more abstract than those in #C above, such as some Rhebus pictures; i.e., ⊡ = in. c. Printed words. d. Graphic representations of manual signs. e. Braille.

Adapted from L. Greene's, "Determining Levels of Representation," a presentation at the 1986 Oregon Summer Institute.

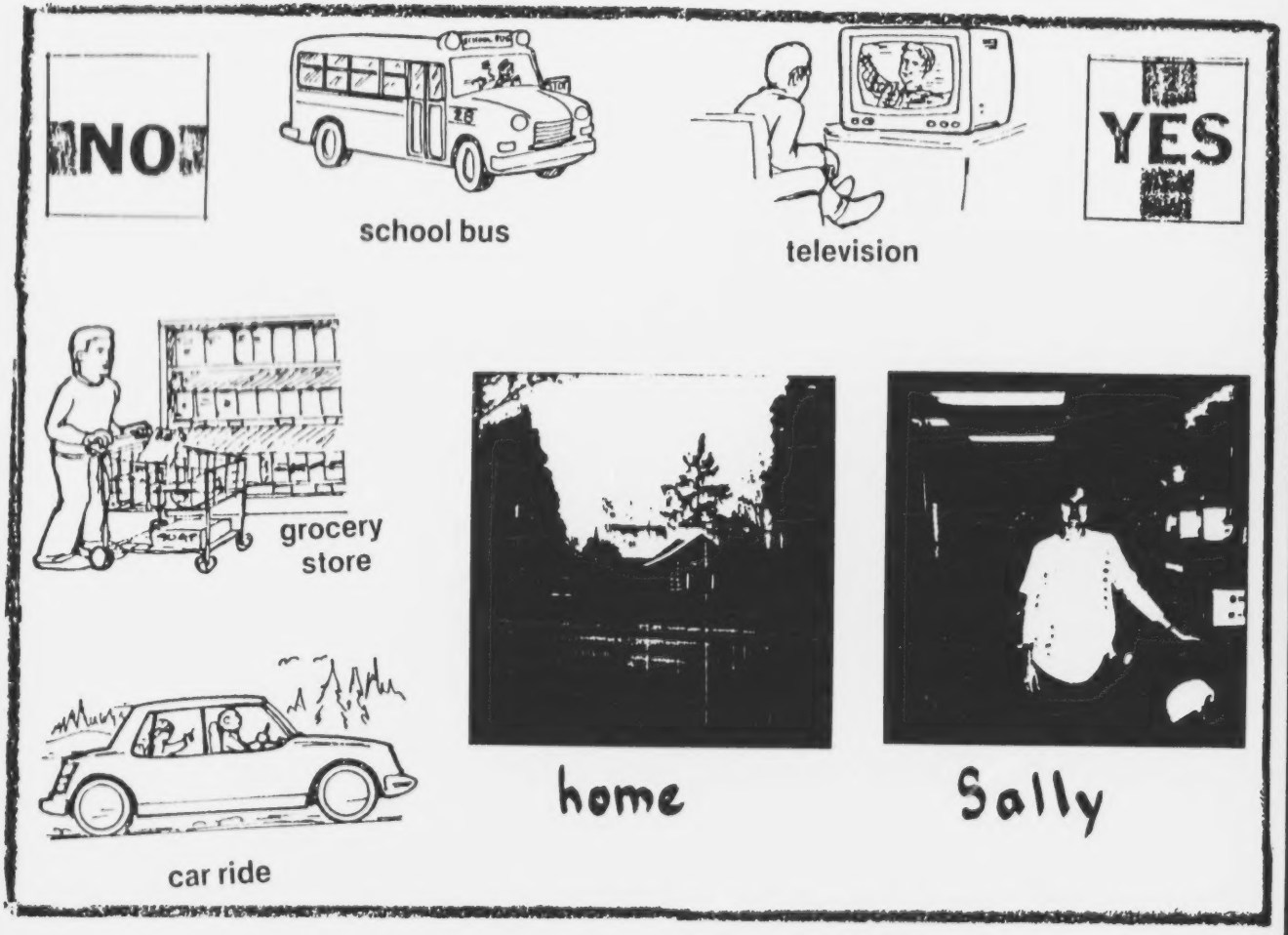

Figure 10: An individual's communication board may combine more than one picture level. This board includes line drawings, photographs and printed words.

Briefly, "Levels of Representation" (Figure 11) includes three major sections: objects, pictures, and picture-object. The idea is to try the same activities with different kinds of pictures and objects to determine the student's optimal functioning level. The object assessment not only gives the evaluator information about the student's ability to receptively identify (item 3) and expressively label (item 4), but it also tracks whether gestures are required to assist the student's understanding (item 5) and looks at the student's understanding of the object. In action-object match (item 6), the student's understanding of object function and icon signs is measured. For example, given scissors and a cup (drink), can the student indicate the appropriate object given the representative sign? After the teacher or peer plays with/uses an object, does the student imitate that action (item 7)? Are objects and actions combined (item 8), such as putting blocks into a dump truck? Finally, the assessment addresses the student's means-ends abilities. These are observed directly (item 9); i.e., student pushes truck; or indirectly (item 10); i.e., student pushes button, pulls string, etc., in order to activate toy.

The picture and picture-object sections determine a student's ability to use pictures and photographs. They are coded as follows:

CTP: Communication Training Program
(commercially available photographs)

MJC: Mayer-Johnson Color
(commercially available line drawings, individually colored)

MJBW: Mayer-Johnson Black and White
(commercially available line drawings)

L.G.: Home/school photographs; the initials of the photographer are used

1"/2": Indicates the size of the picture

As indicated earlier, this information is to be presented to the student in a meaningful manner; i.e., for making choices. Other information that the evaluator will want to note are student's means of indicating his/her choice (i.e., point, grasp, eye-gaze) and the total number of objects in the display. This will be helpful when designing communication boards and determine the complexity of array, necessary distance between pictures, and number of pictures per page.

NAME: Taylor Age 15

DATE: 9/13/87

Levels of Representation

A. Objects

1. Match: Matches objects from daily routine (see below)
2. Sort: Color Size Shape / Cannot do → teacher report did not test
3. Identify: familiar objects only -- see below
4. Label: No
5. Give: With gesture - only with teacher hand out palm up
   Without gesture
6. Action-object match: drink + / hat + / scissors - / pencil +
7. Imitate action on objects: does not imitate
8. Combine actions-objects: scribbled with pencil
9. Direct means-ends: _____
10. Indirect means-ends: turns on tape recorder opened box to get the crackers

	#1 match	#3 identify
cup	+	+
spoon	+	+
fork	+	-
scissors	-	-
pencil	+	+
cassette tape	+	+
hat	+	+

(#1 match: + + + - + + + ; #3 identify: + + - - + + +)

put away dishes

NAME: Taylor (cont)

DATE: 9/17/87

Pictures:

1. Match: CTP 100% matching
   MJC 2°
   MJBW 2°
2. Sort: MJC 2°
   MJBW 2°

random response — visually impaired

3. Action-Object: CTP book + toothbrush - pencil - ball -
   LG hat - earphones +
   MJC 2°
   MJBW 2°

random response

4. Identify by Label: CTP food items + leisure activities +
   LG
   MJC 2°
   MJBW 2°
   MJC 1°
   MJBW 1°

random responses

6. Label: CTP
   LG
   MJC 2°
   MJBW 2°
   MJC 1°
   MJBW 1°

no expressive skills -- does not have communication book

Pictures-Objects:

1. Object-Picture: LG cup - recorder + water game + magazine +
   C 1°
   BW 1°
   C 2°
   BW 2°
2. Picture-Object: LG cup + recorder + water game + magazine +
   C 1°
   BW 1°
   C 2°
   BW 2°

Figure 11: An assessment of a student's representational skills will include objects, photos, and line drawings.

Summarizing Modes of Communication

Prior sections have emphasized the need for team collaboration. Each person will have discipline specific (sensory, motor, medical) information and all members will have completed some observations. Once the assessment process is completed it is best to summarize the information into short statements that reflect the results. One format for such a summary is presented in Attachment 8. This summary may be completed at a team meeting so that each member participates in the process; alternately an individual specialist may complete the summary in order to organize thoughts in preparation for presentation to the team. If a single individual completes the summary, it is best to complete the final two categories ("Receptive Mode" and "Expressive Mode") as team decisions.

"Determining Modes of Communication" is a summary form. Where more specific or technical information is needed, you can refer to original reports and assessment instruments. The individual that takes responsibility for writing specific programs will likely find it necessary to use the completed assessment instruments together with this form. Figure 12 is a sample of a completed form. This student has both vision and motor impairments. While he has no formal language skills, he can communicate a few basic functions through gestures and vocalizations. He primarily communicates through primitive intentional (Level III) and conventional unintentional (Level IV) acts. He can identify only those objects and photos (enlarged and high contrast) that are of high personal interest and in his daily routine. The team determines that they would communicate with him through gestures and speech. Sign language and tactile cues are not necessary as he has adequate hearing and vision. Since a photo communication system would be much easier to use and the student demonstrates an ability to recognize them, the team decided to begin developing a communication board. The team wants this student to be able to communicate as much as possible. They decided to shape his primitive intentional behaviors into conventional gestures and to use objects as a means for teaching new functions. This student's receptive and expressive modes were determined by the consolidation of sensory and motor skills, present level of expressive functioning and representational skills.

Determining Modes of Communication

Participants PT | OT
vision specialist
parent | teacher

Student Taylor J.
Date 9 | 22 | 87

Sensory Status: right eye better -- present stimulus on right side within 2 1/2 feet

Hearing -- O.K.

Motor Status: Must be in good position with pelvis stabilized and if necessary trunk supported, in order to get accurate hand movement. Uses a gross whole hand point

Present Level of Expressive Functioning:
- has no formal language (signs or verbal)
- pushes object away to protest. Requests by handing object to teacher or uses a point.
- vocalizes for attention or "more"

Representational Skills:
- Can identify objects in context of daily routine and knows what they should be used for
- identifies photos of personal interest and with immediate payoff

Receptive Cues:
- Tactile cues - No
- Conventional gestures
- Total communication - DO
- Speech

Use exaggerated gestures for visual input

Receptive Mode: gestures | speech | photos
Also use photos as model and to give more information

Expressive Mode: Begin communication board by developing a "choice board" with photos. Also teach to initiate requests by arranging the environment to facilitate communication. Shape protest with conventional gesture -- head shake. Continue the use of objects -- expand functions here.

Figure 12: The team can summarize assessment information to determine receptive and expressive modes of communication.

CHAPTER 5: PUTTING IT ALL TOGETHER

Introduction

Now we're ready for the IEP! While each assessment will yield specific information about student's communication abilities, that information will need to be integrated so that appropriate teaching occurs within activities that produce meaningful outcomes for the students. After the IEP has been developed, the classroom schedule must be designed to specifically incorporate communication goals across the day. This may mean adding these pinpointed communication skills to existing activity analyses.

Writing Goals

Communication assessment includes procedures for determining the content, form, and function of a student's communication abilities. All three of these areas must be incorporated into other student goals. "Content" determines activities in which the student will have an opportunity to participate. It is then that the demands of the activity can be analyzed to determine specific opportunities for communication. These opportunities to communicate, in turn, become instructional goals. Instead of writing goals for isolated skills, they should incorporate the demands of the entire activity. Table 5 contrasts goals written as isolated "communication" goals with communications goals written to fit the communicative context of a naturally occurring activity.

TABLE 5: Sample - Communication Goals

Traditional Goals	Objective Based Upon Activity Goal
Amanda will point to five objects and demonstrate their functions.	Given an object/shelf representing the daily schedule, Amanda will pick up the next object and proceed to the representative activity.
Bertha will increase the number of functions communicated to three; request object, request action, protest.	Given the choice of leisure activities including liked and disliked items, Bertha will indicate her choice by requesting or protesting.
Casey will demonstrate us of eye gaze to indicate desired items.	During mealtime and snack activities, Casey will look to the instructor, to the food/drink and back to the instructor, to indicate the desired food.
Dan will establish eye contact with the instructor for five consecutive seconds.	Dan will increase the frequency of smiling to request a hug from family/ school staff or to respond to question (sign and speech) "Do you want a hug?"

These prior examples demonstrate ways to write goals such that all communicative elements are included.

The use of augmentative or alternative communication devices or alternative performance strategies is not uncommon with this population of students. In these situations, this information must be included on the IEP goal sheet. This may be the place where the form, that is the student's means for indicating, will be recorded on the IEP. For example, the goal written for Bertha does not include the means she will use to indicate her choice. It could be a communication book, an object shelf or another alternative communication system. Figure 13 depicts an IEP goal sheet and one possible format for recording relevant information.

Scheduling Communication Goals Across the Day

Assessment and instruction must occur within the natural context of the day. A well-planned program will identify communication objectives that are needed across activities in work, leisure and personal management domains; and in the home, school and community settings. It is imperative that appropriate communicative teaching sequences be placed in each of these situations. In this way a student will learn how skills relate to one another, and when and where they should be performed.

The most efficient way in which this can be achieved is to teach students through activities or skills clusters. An activity is a series of related skills taught together in one meaningful sequence or task analysis. It will include not only communication skills, but also motor, self-help, academics, etc. For example, in teaching bowling, not only will the student receive instruction on "how to bowl" but he/she will also learn to rent shoes, obtain a score sheet, locate the appropriate lane, take turns, use public restrooms, etc. These are all taught simultaneously within the context of a real activity. This is quite a complex set of skills and incorporates many opportunities for communication. For example, when obtaining a score sheet, an individual student will need to greet the person behind the counter (establish eye contact, smile or wave) and request the score sheet (point, give note, or give picture/photo card).

Two curriculum models, IMPACT (Neel, Billingsley and Lambert, 1983) and ICS (Holvoet, Mulligan, Schussler, Lacy and Guess, 1982) have developed instructional formats which rely on activity or skill cluster formats. Implicit in both models is the premise that communication and social skills must be embedded into real activities in order for them to be functional.

> *The goal of each program is to increase the student's ability to control and participate in his or her environments through communication. To realize this goal, programming must include teaching a communication behavior (form) that is effective in producing changes for the student (function) across several situations (contents). (Donnellan and Neel, 1985, p 106)*

IEP Goal Sheet

Name: Bill McD.

Domain: Vocational /(Leisure)/ Independent Living

Environment: Home /(School)/ Community

Method of Evaluation: Daily instructional data (number of prompts to initiate next step; number of prompts re: quality of performance)

Priority	Annual Activity Goals	Short-Term Objectives	Initiated	Terminated	Mid. Yr. Eval.	End Yr. Eval.	Prosthetic/Alternate Performance Strategies	Responsibilities/ Timelines
3 of 8	*Use of fast food restaurants* Bill will independently purchase lunch at McDonald's, Wendy's, or Dairy Queen.	*Communication Notebook to Order* 3.1 Bill will use a communication notebook to order different lunch combinations on 5 consecutive opportunities at McDonald's, Wendy's, and Dairy Queen.					Communication notebook will include photos so Bill can select his lunch choice. The order will be printed on the page in the following manner: "I'd like a hamburger without onions, a large fries, and a large orange drink."	Mrs. Smith will send five $1 bills three times per week until Bill has met criterion. Then send money once per week thereafter. Mr. Sprague will return change to Mrs. Smith.
		Next-Dollar Strategy 3.2 Bill will use a next-dollar strategy to purchase lunches up to $5 on 10 consecutive probes at McDonald's, Wendy's, and Dairy Queen.					The next-number strategy works in this manner: Bill will look at the price on the cash register (e.g., $1.47) and count out the number of dollars indicated plus one more.	Ms. Bakin will develop appropriate communication book for Bill by 9-30-82. Include photos of separate items: group by location.

Figure 4.5. Sample form for recording IEP goals.

Figure 13: Sample form for recording IEP goals.

Without specifically addressing communication within the context of every activity it will be overlooked. Figure 14 demonstrates one way this can be accomplished. The Individual Curriculum Sequence (ICS) had developed an activity matrix (Attachment 9) which can be used to determine which activities will accommodate communication goals. In order to utilize this form, write the identified skills across the top and list activities or your classroom schedule down the left-hand side. In completing the form, simply mark an "X" in the corresponding box in which that goal can be incorporated or specify how you intend to incorporate that goal.

This form is an excellent communication tool, especially for a person that is not in the classroom on a daily basis, i.e., speech and language therapist. During an after school staff meeting the entire team should complete this form in collaboration. Not only will everyone then have a more thorough understanding of how to embed communication throughout the day, but they will also take ownership of the program.

Once this matrix is completed, the information can be transferred to the student's daily data sheets. Task analysis can be written to incorporate the goals. Figure 5, taken from the IMPACT curriculum (Neel, et al, 1983) is a sample task analysis written to incorporate the goal "request help." The bibliography lists further resources for scheduling communication across the day.

After the classroom team practices the above procedures, service providers will find that it becomes increasingly easy to spontaneously require communication in everything they do with their students.

As programs are written and implemented, it is likely that revisions will need to be made to accommodate the student's learning styles and develop more relevant content. Procedures in this manual can be used on an ongoing basis to evaluate student progress. The team should communicate regularly and get together as a group periodically to review and update student progress.

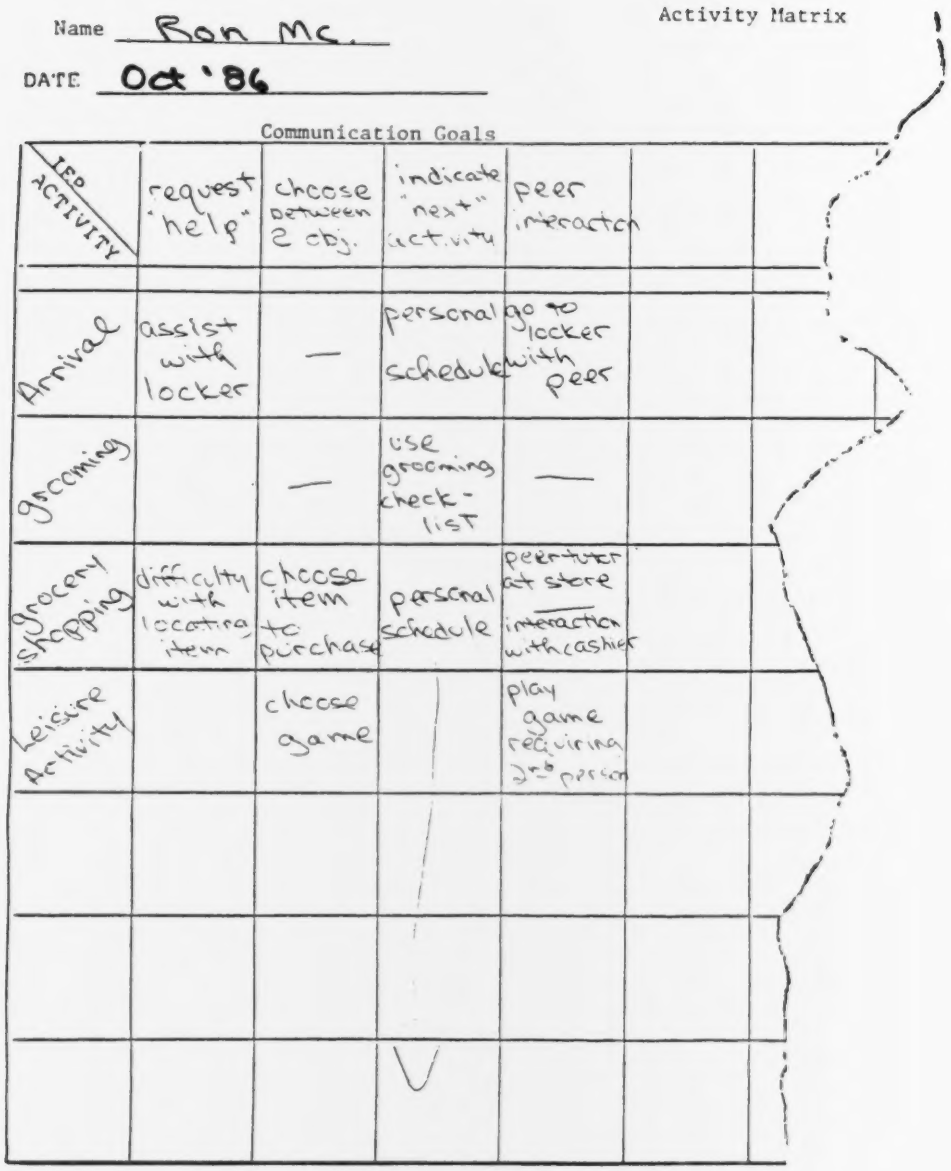

Figure 14: Communication goals are incorporated into all activities with the use of an activities matrix.

RAW DATA SKILL

Name *Johnny*

Date

Routine *Bus to Classroom*

Beginning natural cue *Teacher approaches Johnny*

Critical effect *Arrival in classroom*

Latency *3 seconds*

Levels of Assistance:
Full Physical Assistance - FP
Partial Physical Assistance - PA
Physical Prompt - PP
Verbal Cue Gesture Plus - VG
Verbal Cue - V
Natural Cue or Independent - I

Level Asst.	Duration	Step	Date:	Date:	Date:	Date:	Date:	Date:	Date:	Date:	Date:	Date:
© VG	2 sec	Requests help with seatbelt	C	C	C	/(V)C	EL	C	EL	EL	C	C
V	15 sec	Walks down bus aisle	EL	C	C	E	E	E	C	EL	C	C
I	10 sec	Picks up lunch box	C	EL	EL	C	EL	C	C	C	/Reinforcer fading implemented	
I	5 sec	Exits bus	EL	C	C	EL	EL	C	EL	C	EL	C
PA	35 sec	Walks to building entry	E	C	C	C	/(PP) EL	E	E	C	C	EL
© VG	2 sec	Requests help with door	C	C	E	C	E	C	C	C	/(V)C	C
PA	2 sec	Enters building	C	C	C	/(PP) C	EL	C	C	C	/(VG) EL	C
PA	60 sec	Walks to classroom	C	C	C	/(PP) E	EL	C	E	C	E	E
FP	10 sec	Puts away lunch box	C	C	C	/(PA) C	C	C	/(PP) EL	EL	EL	C
I	7 sec	Takes off coat	ED	ED	ED	C	ED	//C	C	C	//Reinforcer fading implemented	
© VG	2 sec	Requests help finding hook	C	C	C	/(V)C	C	C	/(I)EL	C	EL	EL
VG	10 sec	Hangs up coat	C	C	EL	EL	E	C	C	C	/(V)EL	EL

EL - latency error
E - response error
ED - duration error

© - communication target
C - correct

PROGRAM CHANGE CODE:
/ - level of assistance change or forward movement
// - change in consequence

Figure 15: Communication goals are built into the task analysis.

A New Curriculum for Tommy

Left: **Tommy's hat has a switch to activate the radio; by keeping his head up, he can hear his favorite music.**

Right: **Tommy can communicate his need for help when alone by pressing the adaptive switch that rings a buzzer.**

Diane M. Browder
Doris K. Martin

■ Tommy, and children like him, traditionally have been described by hopeless labels such as "profoundly retarded," "immobile," or "completely dependent." However, he has impressed those who know him with his warm smile and laughter. Recently, Tommy has also impressed his teachers with his ability to acquire new skills. His learning has stemmed from the introduction of a new curriculum.

Tommy resides in a residential facility for severely and profoundly mentally retarded children with severe medical problems. He has spastic quadriplegia, seizures, scoliosis, and severe asthma, and does not respond to visual stimuli. Tommy is able to voluntarily move one arm, nod his head, smile, laugh, and cluck his tongue. Before his new curriculum was implemented, he had no recognizable expressive communication. On the Bayley Scales of Infant Development and the Vineland Social Maturity Scale, Tommy has scored below the 2 month level. He is 12 years old.

Tommy's individualized education program (IEP) has included skills from the 2- and 3-month developmental level for his entire school career. In the past, his lack of progress has been attributed to the severity of his handicaps. However, with the help of his grandmother, Tommy also has made some unmeasured progress over the years. She has taught him to make voluntary responses to her verbal directions. When she cannot be with Tommy, she has left tapes of her songs and directions using language that far exceeds the receptive language of early infancy. Tommy even laughs at her jokes.

With the grandmother's support, the teacher began a complete revision of Tommy's curriculum to make him more communicative and interactive with his environment. Rather than relying on the development scales that defined

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what Tommy could *not* do, the teacher turned to his grandmother and his environment to begin defining what he *could* and *might* do.

One curriculum model that seemed to offer an alternative to Tommy's infant curriculum is a functional or life skills approach (Browder & Stewart, 1982; Brown, et al. 1979; Snell, 1983). However, since few of the published examples of this curriculum have offered examples for students with Tommy's handicaps, the teacher initiated the curriculum change uncertain of how many skills Tommy would attain.

ASSESSMENT

Life Needs Assessment

When the teacher relied on traditional developmental assessment, she realized that Tommy might never develop beyond the scale's infant range. In contrast, the functional curriculum approach permitted her to identify chronologically age-appropriate skills that could be adapted to his skill level. In developing his new curriculum, she conducted inventories of skills needed for his current and future environments. Tommy's grandmother helped to identify these environments and prioritize his needs in each. His only current environments were his medical residence and the grandmother's home. His grandmother wanted Tommy to acquire the physical stamina and skills needed to accompany her to other environments, such as a shopping mall and restaurant. His teacher also looked for environments that could enhance Tommy's recreational, community, and vocational skills. The local YM/YWCA, community health facilities, and a van for transportation provided options. The senior citizen center also provided a unique setting for Tommy because of his positive association with his grandmother. Since the center had medical facilities, it could provide a first step to community integration. Tommy might learn to provide companionship at the center as a "volunteer." Finally, the teacher selected a group home as a potential future domestic environment. To determine the skills needed for each setting, the teacher constructed a questionnaire (see Figure 1).

FIGURE 1
Life Skills Questionnaire

Site _____ *Date* _____

Interview Contact Person _____

1. Is the facility barrier-free? Are there areas within the facility that are not accessible to a wheelchair?

2. Is there medical treatment available? How close is the nearest hospital?

3. What activities are typical of 12-year-old boys in this facility? How often are these available?

4. What is the average cost of these activities?

5. What accommodations would the staff make for an individual with Tommy's handicaps?

Skills Assessment

Once potential environments and activities were identified, the teacher assessed Tommy's current skills in these activities. He had several major skill deficits that were critical to most environments. He had no communication system. He had poor head control, lacked physical stamina, and had severe asthma. Because of these physical deficits, he had been excluded from most outings in the van. Also, because of his communication and physical deficits, all his life skills were performed for him. Tommy was totally dependent on others' choices.

The teacher devised several activity-related assessments to determine where to initiate instruction. To select a communication system, she observed Tommy listening to the tapes made by his grandmother. The teacher recorded his responses using 10-second partial interval sampling, noting the stimulus for each response and the type of response made (Sulzer-Azaroff & Mayer, 1977). Tommy correctly responded to 11 out of 20 of his grandmother's directions by smiling or clucking his tongue. On one occasion he said the word "Nana" for *grandmother* in response to his grandmother's prompts. The tongue cluck was Tommy's most consistent voluntary response, so the teacher assessed his ability to cluck imitatively. He did this for 19 out of 29 trials over a 2-day period. The cluck seemed to provide a potential for a "yes" response.

To assess Tommy's ability to use his own tape recorder, the teacher observed his range of motion. Although he could not use his hands, he could move one arm vertically and horizontally, approximating the response needed to activate a "flipper" switch. This switch could provide Tommy with both recreational and vocational options. With the flipper switch he could also activate a buzzer to signal for emergency medical help.

The teacher assessed Tommy's travel skills by pushing him around the building in his wheelchair. He did not hold his head up independently, but would lift it and hold it erect if the teacher made the chair pushing contingent on head control. However, Tommy tired quickly.

Tommy plays his tape recorder by using an adaptive switch and listens to his grandmother's conversations with him.

Since Tommy could not yet travel to the YM/YWCA, his teacher assessed his pool skills in a wading pool. He startled and tensed when placed in even a shallow level of warm water.

The teacher also assessed Tommy's ability to participate in his daily routines. On an informal basis, he was observed to smile in response to compliments about his clothes. Also, he would hold his head up on command when the teacher put his t-shirt on and would lower his arms after they were inserted in the sleeves. It seemed possible that he could learn to select his clothes with a "yes" response and could consistently participate in his dressing with voluntary head and arm movements.

TOMMY'S NEW CURRICULUM

Based on the environmental inventories, observations, and discussions with his grandmother, the teacher selected the following priority skills for Tommy:

1. A yes/no communication system.
2. Partial participation in self-care routines.
3. Use of a flipper switch.
4. Tolerance for wheelchair travel.

These skills would be taught in the context of real life activities. Figure 2 presents Tommy's entire curriculum plan.

Like all people, Tommy has recreational, community, domestic, and vocational life domains. Moving down from these domains, Figure 2 shows his current and future environments. The next to last level lists activities within these environments. The last level includes the skills that were translated into IEP objectives.

An example fromthe IEP follows:

Annual Goal: Given the task of dressing with help from his teacher, nurse, or grandmother, Tommy will indicate his clothing preference and participate in his dressing on 4 out of 5 days.

Objective One: When told he has a choice between two shirts that are described by color and texture and asked the question, "Do you want _____?", Tommy will cluck "yes" for only one shirt on 4 out of 5 days.

ONE YEAR LATER

When the teacher developed Tommy's curriculum wheel, she assumed that she had planned enough to last for several years of instruction. Tommy surprised and impressed both his teacher and his grandmother in 1 year.

He quickly learned to cluck his tongue for "yes." His receptive vocabulary enabled him to respond to normal conversation as well as to his set of questions. For example, at a staff meeting to review his progress, his teacher said, "You like being able to say 'yes,' don't you?" Tommy clucked his tongue and smiled. Over the next several months, his teacher expanded his communication training to include a head movement for "no." To teach this important communication, the teacher presented Tommy with a choice and modeled the "yes" or "no" response. If he imitated "yes" he received the item. If he nodded "no" he did not. The teacher gradually faded her model. If Tommy gave the "wrong" answer he quickly learned from his mistakes. For example, once he said "yes" to a warm sweater on a hot day so she put the sweater on him. When the teacher asked again, he quickly said "no" and she removed it.

Tommy's new communication skill had a special impact on his daily care. Despite his blindness, he chose clothes according to color descriptions and showed a preference for green, possibly because the residence staff frequently complimented his green clothes. At mealtime, the staff solicited his preference for each bite of food. On one occasion, he chose desserts and vegetables and refused meat. Feeling that meat was important to his nutrition, the teacher slyly asked, "Do you want more?" Tommy clucked, anticipating more vegetables. When he got the meat in his mouth, he slid his arm across his food tray, spilling its contents. This rare noncompliant act showed the teacher that Tommy was angry with her for misusing his communication system.

Tommy also mastered the use of a flipper switch. With his "yes" response, he chose his favorite tape. He could turn the tape recorder on or off as he desired. The teacher had given him a buzzer to signal for assistance in the classroom. Her next goal was to teach him to use it to signal a nurse in his residence. She was teaching him to wait if the staff was busy, or to give a prolonged buzz in true emergencies.

Getting Tommy out into the community began with shaping his tolerance for wheelchair travel. To do this, the teacher took him for strolls outside, used a wheelchair swing, and made brief trips in the van.

When he completed his goals for the

FIGURE 2
Tommy's Curriculum

DOMAIN: Domestic

ENVIR ONMENTS: Current: Medical residence
Grandmother's home
Future: Group home

Subenvironments	Priority Activities	Priority Skills for IEP
Bedroom	Participating in dressing	1. Communicate choice 2. Move arms to help put shirt on
	Ringing buzzer for help	1. Activate switch 2. Respond to yes/no questions
Bathroom	Participating in bathing	1. Move arms on command 2. Maintain head control 3. Participate in face washing
	Participating in personal hygiene	1. Communicate need to be changed
Dining room	Eating	1. Communicate choice 2. Indicate when full 3. Drink from a straw
	Socializing	1. Eat in presence of people and noise 2. Communicate greetings 3. Wait turn to be fed without crying
Living room (see Recreation)		

DOMAIN: Recreation

ENVIRONMENTS: Current: Medical residence
Grandmother's home
Future: YM/YWCA
Events at theater or college

Subenvironments	Priority Activities	Priority Skills for IEP
Living room	Listening to tapes	1. Select tape 2. Activate switch to turn tape player on/off 3. Ring buzzer to help to change tape
Library/living room	Listening to stories read from books	1. Select book 2. Respond to yes/no questions about book
Outdoors	Swinging in wheelchair swing	1. Indicate desire to swing and to stop 2. Maintain head control on swing
	Taking walks in wheelchair	1. Maintain head control 2. Tolerate chair for longer periods of time 3. Respond to yes/no questions about outdoors
Pool	Swimming	1. Indicate desire to get in/out of pool 2. Tolerate water 3. Move arms independently
Theater/bleachers	Observing events	1. Maintain head control 2. Indicate needs (e.g., thirst, hunger, personal hygiene) 3. Respond to yes/no questions about the event

Continued

school day, his teacher would read him a story. Until recently, she and his grandmother had both chosen preschool books, but when the teacher introduced high interest, low vocabulary books with adolescent themes, Tommy chose these rather than his old preschool books.

Observers who did not know Tommy before his new curriculum was implemented assume that he had more skills to begin with than most students with

FIGURE 2 *continued*

DOMAIN: Community		ENVIRONMENTS: Current: Travel Senior citizens center Future: Shopping mall Restaurant Community physician's office
Subenvironments	**Priority Activities**	**Priority Skills for IEP**
Car or van	Traveling without one-to-one assistance	1. Maintain head control 2. Tolerate chair 3. Maintain body alignment
Senior citizens lounge	Socializing	1. Give gifts 2. Use yes/no communication with strangers 3. Play cassette tapes for others
Stores	Buying clothes	1. Communicate choice 2. Maintain head control 3. Tolerate chair
Physician's office	Cooperating with examination	1. Use yes/no with doctor 2. Tolerate examination
Dining area of restaurant	Eating	1. Drink with straw 2. Eat in strange setting 3. Communicate choices
DOMAIN: Vocation		ENVIRONMENTS: Current: Medical residence Future: Senior citizens center or other residences as audiovisual assistant
Subenvironment	**Priority Activities**	**Priority Skills for IEP**
Lounge/living room	Running audiovisual equipment that has been set up	1. Activate switch for on/off 2. Ring buzzer when equipment malfunctions or movie or tape is completed

his handicaps. Those who had worked with him previously are amazed by his progress. He is no longer hopeless or helpless.

The teacher has new ambitions for Tommy. His interest in adolescent activities supports the need for integration with his peers. The teacher is trying to find a Boy Scout troop that meets near his residence, and she is contacting area public schools. She hopes to expand his flipper switch skills across other audiovisual materials so that he can, for example, show movies for other clients. Assigning him the duty of showing films will begin to teach him vocational concepts. The teacher also hopes to improve Tommy's outdoor travel and pool skills. These skills and others will comprise his *new* IEP. For the first time, Tommy has mastered more than half of his old IEP goals.

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Partial support for the preparation of this article was provided by the U.S. Department of Education, SEP Grant #G008101833.

APPENDIX B

PERSPECTIVES ON COMMUNICTION ASSESSMENT

By Charity M. Rowland

Instruments Currently Available

In the past few years, a number of communication assessments have appeared that incorporate the most current perspectives on language development and that include a range of preverbal communication items. Some of these have been designed specifically for or have been adapted for use with persons with severe disabilities or deaf-blindness. The most current and pertinent of these instruments are presented in Table 2, categorized according to the various parameters critical to their use with the target population. It is important to note that all of these instruments are recently development Criterion Referenced Tests (some are only available in experimental editions), and only one of them (Connard, 1984) provides reliability and validity data. General characteristics of the instruments cited in Table 2 are briefly discussed below.

The Communication Placement Assessment, or CPA (Stremel-Campbell, 1984) assesses sensorimotor, social and communication skills, including communicative functions. It was developed for young children and older children or youth with severe disabilities. It is a compilation of items from other published scales as well as some original items, ordered according to sequences observed in nondisabled children. The CPA yields a visual profile of the student's functioning. The assessment results can be translated directly into IEP objectives, using the IEP worksheet included with the instrument.

The Early Social-Communication Scales, or ESCS (Seibert & Hogan, 1981) are arranged according to five hierarchical levels of cognitive organization, based upon Fisher's Neo-Piagetian theory of cognitive skills development. These five levels cover cognitive development from 0-24 months. The three domains of the scale represent major social-communication functions: Social Interaction, Joint Attention and Behavior Regulation. Within each domain, items reflecting initiating versus responding roles are tracked separately. For the Social Interaction and Joint Attention domains, items reflecting the maintaining role are also tracked separately. The scale is available in both a formal assessment procedure and an interview format. The ESCS yields a score from 0-4 indicating level of functioning on each of the eight subscales, as well as a mean level for the whole scale. The companion Sensorimotor Performance Profile (Siebert & Hogan, 1982) is an adapted version of the Ordinal Scales of Psychological Development (Uzgiris & Hunt, 1975) sequenced according to the same five levels of cognitive organization as the ESCS.

The Generic Skills Assessment Inventory, or GSAI (McLean, et al, 1981) addresses generic object relationship, representational, social and communicative skills, specifically separating dyadic interaction skills. The inventory was developed for use with nonverbal youth and adolescents with severe mental retardation, although a revised version for younger children is

currently being developed. Because the items are written entirely generically, the scale contains a fairly small number of items. Within each domain, the items are organized according to four levels of increasingly complex cognitive organization. The scale yields a profile of abilities, and the results may be translated directly into generic skill objectives.

The Gestural Approach to Thought and Expression, or GATE, (Langley, 1976) includes nonverbal communication items and related social and cognitive items. The items are not separated into skills domains, however. The items are grouped into levels that represent six age groups (0-4 mo.; 4-8 mo.; 8-12 mo.; 12-18 mo.; 18-24 mo.; and 24-36 mo.). The GATE yields a single score of the subject's "developmental communication age." The instrument is not designed to be directly translated into instructional objectives. The original GATE has been adapted for use with students with deaf-blindness by the Deaf-Blind program at the University of Washington.

Nonverbal Prelinguistic Communication: A Guide to Communication Levels in Prelinguistic Handicapped Children (Otos, 1983) was developed as an intervention guide rather than as an assessment instrument. It is referenced in Table 2 because it provides extremely practical information pertinent to communication issues for persons with deaf-blindness and because it does afford a profile of communication skills for persons communicating on a prelinguistic level. The guide is mode-specific, tracking communication via touch, objects and gestures/manual signs through nine levels of prelinguistic communication. Generic communication behaviors are specified at each level, and specific examples are provided for each communication mode. The guide provides a response summary indicating a student's communicative skill level for each of the three communication modes. The results of this summary may be translated directly into instructional objectives.

The Preverbal Assessment - Intervention Profile, or PAIP (Connard, 1984) covers communication and reflex/motor skills from birth to a functional level of 18 months. The PAIP was developed for use with infants with severe and multiple handicaps and covers communication only up to (but not including) the level where conventional preverbal communication usually begins. The PAIP is divided into three developmental stages, representing developmental ages of 0-1 mo.; 1-4 mo.; and 4-8 mo. These stages also represent three generic types of behavior: Awareness, Attending, and Orienting. The motor scales are fairly conventional. However, the communication scales track awareness of and attending to specific types of visual and auditory stimuli versus human interaction at stages 1 and 2. At stage 3, the communication scales assess the mode of the subject's orienting responses to specific objects versus specific types of care giver behavior. Unlike the other instruments cited thus far, the PAIP derives some of its information from administration of observational codes, thus enabling the calculation of objective scores for such skill-domains as early interaction, social bond attending and orienting to persons. Scores and profiles are provided for each subscale and stage. Forms are provided for translating results into personalized objectives and narrative plans.

Future Directions*

A new communication assessment instrument--the Callier-Azusa, Scale-H (Stillman & Battle, in press, a.) designed specifically for use with individuals who are deaf and blind, is currently being developed. According to the authors' description (Stillman & Battle, in press, b.), this scale promises to address a number of critical issues relevant to communication assessment for the target population. The Callier-Azusa, Scale-H is comprised of four developmental domains: Representational and Symbolic Abilities; Receptive Communication; Intentional Communication; and Reciprocity. Items in the first two domains are ordered according to a sequence of progressive differentiation and decontextualization between the elements of the communicative interaction. Items on the remaining two dimensions are sequenced according to levels of communicative intentionality. The Callier-H is currently being pilot-tested on a population of individuals with dual sensory impairments. This new instrument promises to be a valuable tool in the critical area of communication skills assessment in children with deaf-blindness.

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*Now Available

TABLE 6: Preverbal Communication Assessment Instruments

Assessment Instrument and Subscales	Communication Aspects Specifically Assessed in Separate Strands: Related Cognitive Skills	Related Social Skills	Function/ Intent	Dyadic	Target Population	D/B Adaptations	Scoring System
Communication Placement Assessment (Stremel-Campbell, 1984) (Responses to Sensory/Social Input, Interaction with Objects, Vocal Development, Receptive Communication, Expressive Communication)	x	x	x		0-24 month children with severe handicaps	No	Profile
Early Social-Communication Scales (Siebert & Hogan, 1981) (Responding to Social Overtures, Initiating Social Interaction, Maintaining Sustained Social Interaction)	x*	x	x	x	0-24 month children with developmental disabilities	No	Score (Communication level)
Generic Skills Assessment Inventory (GSA I) (McLean, et al., 1981) (Object Relationships, Representation, Dyadic Interaction Expressive Communication, Comprehension/Limitation)	x	x	x	x	Nonverbal youth with severe handicaps	No	Profile
Gestural Approach to Thought and Expression (GATE) (Langley, 1976) (No subscales)					Nondisabled children 0-36 month	Yes**	Score
Nonverbal Prelinguistic Communication: A Guide to Communication Levels in Prelinguistic Handicapped Children (Otos, 1983) (Tactile, Objects, Gestures & Signs)	x (Not designed as assessment instrument)	x	x	x	Prelinguistic persons with deaf/blindness	Yes	Profile
The Preverbal Assessment - Intervention Profile (Connard, 1984) (Visual Awareness, Auditory Awareness, Earliest Interaction, Reflex/Motor, Tactile Acceptance/Defensiveness, Visual Attending, Auditory Attending, Social Bond Attending, Orienting to Objects, Orienting to Persons	x	x		x	0-8 month infants with severe multiple handicaps	Yes	Score & Profile

* Cognitive skills addressed in the companion Sensorimotor Performance Profile (Siebert & Hogan, 1982)
** Adapted version developed by: Deaf-Blind Program, University of Washington, Seattle, Washington

Taken from: Communication Development in Young Children with Deaf-Blindness, Literature Review II (1986) Ed., Michael Bollis, Teaching Research: Oregon

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Attachment 1

INDIVIDUAL SKILL GOALS PRIORITY RATING SHEET

Student Name_____ Evaluator_____ Date_____

SCORING KEY:

0. No or never
1. Rarely
2. Maybe or sometimes
3. Usually
4. Ues or always
NA Not Applicable

	SKILLS/GOALS							
1. Can student use skill in immediate environment								
2. How often will skill be encountered by student in environment								
3. Can skill be worked on across several environments/situations								
4. Can skill be taught naturally using realistic materials in realistic settings								
5. Does skill produce immediate consequences for the student								
6. Does skill build on existing strengths or skills								
7. Does skill facilitate development in other domains								
8. Does student have prerequisites for the skill								
9. Does this skill remediate an identified problem								
10. Does skill help student to compensate for sensory or motor deprivation								
11. Is skill a prerequisite for later learning								
12. Will student be more independent as a result of learning this skill								
13. Will this skill facilitate movement to a less restrictive environment or educational placement								
14. Will this skill improve quality of life - choice, power, independence								
15. Is this skill necessary for medical or physical reasons								
16. Is this skill critical for social acceptance								
17. Is this skill fun for the student								
18. Is this skill age-appropriate								
19. 1 - (72) high to (0) low priority								

Linda Cook Johnson, Linfield State Hospital and Training Center, 1982, Linfield, Kansas

Attachment 2

Observation No. ____

Observer_____ Date_____

Time: from _____ to _____

Learner's Name_____

Grade_____ Activity_____

Describe, in behavioral terms, the setting within which the activity typically takes place.

_____

_____

_____

_____

List all the behaviors displayed by the learner during a ten-minute period in which he/she is engaged (or supposed to be engaged) in the chosen activity. If the same behavior occurs more than once, indicate this by making tallies in the frequency column.

Description of Behavior	Frequency

Student_____ Date_____

Teacher_____ Consultant_____

Aide_____

Time	Activity/Materials	What Happened

ASSESSMENT OF CONTENT, FORM, AND USE
Informant Interview
D. C. Lapidus

Child's Name: _____

Teacher's Name: _____

Completed by: _____

Date: _____ Relationship to Child: _____

The following questions were designed to obtain information on your child's communication abilities at home and in settings other than school. This information will be used to develop the most appropriate communication program for your child.

The person who is most familiar with the child should respond. Please answer each question thoroughly, and do not hesitate to add additional information wherever you want.

Thank you.

1. What does your child do to let you know that he or she wants:

   a. Something to eat? Give examples: _____

   _____

   b. A certain object? Give examples: _____

   _____

   c. You to do something? Give examples: _____

   _____

   d. More of something? Give examples: _____

   _____

   e. A particular action to stop? Give examples: _____

   _____

   f. To go to the bathroom? Give examples: _____

   _____

(Lapidus, 1985)

Child's Name: _____

2. Does your child communicate in some way that assistance is needed (for example, presenting shoe that needs to be tied)? _____
   If yes, what does he or she do? _____

   _____

3. Does your child do things for the purpose of getting attention? _____
   If yes, what does he or she do? _____

   _____

4. Does your child want affection? _____ If yes, what does he or she do to let you know that affection is desired? _____

   _____

5. Does your child enjoy tickling, roughhousing, or childish games like peek-a-boo or pat-a-cake? Please specify: _____

   _____

   Does your child show you that he or she wants to play? _____

   If yes, how? _____

   _____

6. Does your child appear to need permission to do simple activities (for example, hold his or her clothes in the morning and look at you until you say "get dressed," or give him or her a look? _____ Please specify when your child seems to need permission and what you do to get him/her going.

   _____

7. Does your child respond to:

   a. Directions? _____

   b. Questions that begin with what, who, where, when, how or why? _____
      If yes, how does your child respond, and to which questions? _____

      _____

   c. Questions that call for a yes or no answer? _____ If yes, how does your child respond? _____

      _____

(Lapidus, 1985)

Child's Name: _____

8. Does your child protest the following situations, and if yes, how?

   a. If he or she does not want to do something--how? _____

   _____

   _____

   b. If he or she is not allowed to do or have something--how? _____

   _____

   _____

   c. If a desired object is taken away--how? _____

   _____

   d. If the environment or routine is changed--how? _____

   _____

9. Does your child greet you on his or her own initiative? _____
   If yes, how? _____
   Does your child respond to greetings? _____ If yes, how? _____

   _____

10. Does your child communicate:

   a. Pleasure? _____ If yes, how? _____

   _____

   b. Pain? _____ If yes, how? _____

   _____

   c. Fear? _____ If yes, how? _____

   _____

   d. Frustration? _____ If yes, how? _____

   _____

   e. Other? Please specify: _____

   _____

(Lapidus, 1985)

Child's Name: _____

11. Does your child make noises that sound like the toy he or she is playing with, or the action he or she is performing? _____ If yes, please specify: _____

_____

12. Does your child make sounds as he or she is examining or playing with an object or body part? _____

_____

If your child speaks or uses sign language, or a communication board, please fill out the remaining questions. If your child does not, please go to question 26.

13. Does your child ask for information (for example, where someone is, where someone lives, birthdays, when the bus is coming)? _____
If yes, please give examples: _____

_____

_____

Does your child seem to ask the same question repeatedly? _____
If yes, please give examples: _____

_____

14. If your child does not understand something that someone has said, does he or she request that it be clarified (for example, by saying "what?" or "I don't understand")? _____ If yes, what might your child say?

_____

15. Does your child use polite words such as, thank you, please, excuse me? _____ Does he or she use them appropriately? _____

16. Does your child comment (that is, make remarks) about:

a. Himself or herself, or what he or she is doing? _____ If yes, give example: _____

_____

b. Other people or their actions? _____ If yes, give example:

_____

c. Objects or situations? _____ If yes, give example: _____

_____

17. Does you child say the names of objects or people for no apparent reason, and then look at you? _____

(Lapidus, 1985)

18. Does your child say the names of objects or people for no apparent reason, without looking at you or relating to you? _____

19. Does your child give information either when asked or on his or her own initiative? _____ If yes, please specify: _____

20. Does your child talk to himself or herself about what he or she is going to do (for example, "sit down" as he/she sits down), or what he or she is not allowed to do (for example, "don't bite" as he or she inhibits himself or herself from biting)? _____ If yes, please describe:

21 Does your child talk to himself or herself so that the content of what he or she is saying does not appear to relate to the situation? _____ If yes, give example: _____

22. If your child has a limited vocabulary, that is, under 25 words, please list them below and specify if any words are used in specific or unusual situations: _____

(Lapidus, 1985)

23. Does your child repeat things:

a. That he or she just heard? _____ If yes, give example: _____

b. That he or she heard sometime earlier (includes TV commercials)? _____
If yes, give example: _____

24. Can you have a conversation with your child? _____ If yes, about what? _____

25. Does your child demonstrate difficulty interacting with people in community settings such as stores, restaurants? _____ If yes, please describe: _____

26. What objects and activities interest and motivate your child? _____

27. What do you feel are the communication priorities for your child? _____

Why? _____

Thank you for filling out the Informant Interview. Your input is greatly needed and appreciated.

(Lapidus, 1985)

Assessment of Language & Communication in Autism
Form 4
Assessment of Content, Form, & Use
Sample of Language & Communicative Nonverbal Behavior: Form & Function Chart

Child's Name: _____

Date(s) of Sample: _____

Date Form Completed: _____

FORMS OF LANGUAGE & COMMUNICATION			FUNCTIONS OF LANGUAGE AND BEHAVIOR: COMMUNICATIVE FUNCTIONS — Request for: 1 Food	2 Object (not food)	3 Attention	4 Affection	5 Assistance	6 Action	7 Bathroom	8 Permission (not bathroom)	9 Social routine	10 Turn	11 Information	12 Clarification	Response to: 13 "Wh" question	14 Yes-no question	15 Direction	Protest / Reject: 16 Object	17 Action	Acknowledgement of Other: 18 Initiation of greeting	19 Response to greeting	20 Politeness markers	21 Relinquishing turn	Comment: 22 On self	23 On other person	24 On object or action (includes interactive label)	25 Giving information	26 Expression of feelings: a pleasure	b pain	c fear	d frustration	e other	Other: 27 Specify	Subtotal: Forms of Communicative Functions	NONCOMMUNICATIVE FUNCTIONS: 28 Self-regulatory / rehearsal	29 Noninteractive label or comment (related to context)	30 Nonfocused (self-stimulatory)	31 Other	Subtotal: Forms of Noncommunicative Functions	Total: Forms of Communicative & Nonmmunicative Functions
UTTERANCES	Speech	a One word																																								
		b Two-three words																																								
		c Complex utterances																																								
	Sign	d One word																																								
		e Two-three words																																								
		f Complex utterances																																								
	Communication Board	g One word																																								
		h Two-three words																																								
		i Complex utterances																																								
	Combined Forms	j One word																																								
		k Two-three words																																								
		l Complex utterances																																								
	Echolalia	m Immediate exact																																								
		n Immediate mitigated																																								
		o Delayed																																								
		Subtotal: Functions of Utterances																																								
NONVERBAL BEHAVIOR		p Gesture pointing																																								
		q Manipulation of other																																								
		r Vocalizations																																								
		s Cries																																								
		t Gaze																																								
		u Gaze shift																																								
		v Proximity: moves closer																																								
		w Proximity: moves away																																								
		x Facial expression																																								
		y Head nod																																								
		z Bodily contact																																								
		aa Action: e.g., grabbing, reaching, taking, giving																																								
		bb Self-injurious behavior																																								
		cc Aggressive behavior																																								
		dd Tantrum behavior																																								
		ee Other _____																																								
		Subtotal: Functions of Nonverbal Behavior																																								
		Total: Functions of Utterances & Nonverbal Behavior																																								

Key

1st Context: _____
Color _____
2nd Context: _____
Color _____
3rd Context: _____
Color _____
4th Context: _____
Color _____
5th Context: _____
Color _____

a Total no. of communicative utterances
b Total no. of nonverbal behaviors
c Total no. of communicative utterances & nonverbal behaviors (a + b = c)
d Total no. of noncommunicative utterances
e Total no. of utterances (a + d = e)
f – n see Form 5

(Lapidus, 1985)

Functions Assessed Through Informant Interview

Question Number		Function Assessed
1.	a.	request for food
	b.	request for object
	c.	request for action
	d.	request for food, object, or action (depending on examples given)
	e.	request for action or protest (depending on examples given)
	f.	request for bathroom
2.		request for assistance
3.		request for attention
4.		request for affection
5.		request for social routine
6.		request for permission
7.	a.	response to direction
	b.	response to "wh" question
	c.	response to yes/no question
8.		protest
9.		initiation of greeting and response to greeting
10.		expression of feelings/exclamatory
11.		performative: category of other (#31)
12.		reactive: category of Other (#31)
13.		request for information
14.		request for clarification
15.		politeness markers
16.	a.	comment on self
	b.	comment on other person
	c.	comment on object or action
17.		comment on object
18.		noninteractive label or comment
19.		giving information
20.		self-regulatory/rehearsal
21.		nonfocused

Attachment 6

PRELANGUAGE/LANGUAGE COMMUNICATION SAMPLE (10 Minute)

Name _____ Observer _____ Ratio-Adult/Students _____ Language Modality: Sign☐

Date _____ Setting and Activity _____ Communication Board ☐

Level III				Level IV				Level V		Level VI	Level VII	Level VIII	Type of Support				Function									Meaning
Body movement/ Facial Gestures	Touch/Reach		Manipulation Person	Extended object	Point	Gesture	yes/no	Object representation	Pictures	One word (object present)	One word (obj. not present)	2 + utterances	Physical assist	Imitate	Response	Initiate	Request more	Protest	Request object/action	Repeat	Request attention	Greeting	Offer/ transfer	Label/ comment	Other	

68

92

H2–2697a

93

Level III				Level IV				Level V		Level VI	Level VII	Level VIII	Type of Support				Function									Meaning
Body movement/ Facial Gestures	Touch/Reach		Manipulation Person	Extended object	Point	Gesture	yes/no	Object representation	Pictures	One word (object present)	One word (obj. not present)	2 + utterances	Physical assist	Imitate	Response	Initiate	Request more	Protest	Request object/action	Repeat	Request attention	Greeting	Offer/ transfer	Label/ comment	Other	

ASSESSING FOR AN AUGMENTATIVE COMMUNICATION SYSTEM

Name: _____

Birthdate: _____ Age: _____ Date: _____

Examiner: _____

I. Motor

A. Tone: _____

B. Positioning: _____

C. Mobility: _____

D. Voluntary Movement:

1. Parts of the body

Left		Right
____	head	____
____	shoulder	____
____	elbow	____
____	forearm	____
____	wrist	____
____	hand	____
____	fingers	____
____	hip	____
____	knee	____
____	foot	____

2. Eyes

____ left/right
____ up/down
____ E-Tran ____ 2 locations ____ 4 ____ 6 ____8
____ other (eye blink, eyebrow)

E. Selection Technique

1. Scan

____ step
____ automatic
____ row column
____ directional

2. Direct Selection

____ finger
____ hand
____ hand held pointer
____ head pointer
____ mouth held pointer
____ optical head pointer

(Greene/Winthrop, 1986)

a. Range of movement (vertical and horizontal, flat surface or angle)
____ 6 inch ____ 6-12 inch ____ over 12 inch

b. Strength of movement
____ excellent ____ good ____ fair ____poor

c. Speed
____ excellent ____ good ____ fair ____poor

d. Accuracy
____ excellent ____ good ____ fair ____poor

II. Auditory Skills

A. Acuity

1. Does the student have an auditory problem which might impede learning: yes ____ no ____ If yes, describe: _____

_____

2. Student's ability to attend auditorily to stimuli:
excellent ____ good ____ fair ____ poor ____

B. Perception

1. Does the student have difficulty with auditory discrimination:
yes ____ no ____ If yes, describe: _____

_____

2. Does the student have difficulty with auditory memory or auditory sequencing:
yes ____ no ____ If yes, describe: _____

_____

III. Visual Skills

A. Acuity

1. Does the student have a visual problem which might impede learning: yes ____ no ____ If yes, describe: _____

_____

B. Picture skills

1. Action - Object Match
2. Match picture - picture
3. Sort
4. Identify by label
5. Label
6. Match pictures to objects
7. Match objects to pictures

C. Orthographic skills

1. Reading
   a. Match words to pictures
   b. Match words to signs
2. Typing
3. Spelling

D. Dyadic interaction

1. Request - objects, actions, assistance
2. Comment
3. Reject
4. Establish an interaction
5. Maintain an interaction

E. Symbol selection

1. Representation
   a. photograph -
   b. commercial -
   c. traditional orthography -

2. Size
   a. 2 inches -
   b. 1 inch -
   c. 1/2 inch -

3. Distance
   a. 3 inches -
   b. 2 inches -
   c. 1 inch -
   d. 1/2 inch -
   e. no space

4. Number
   a. 1 - 2
   b. 3 - 5
   c. 6 - 10
   d. 11 - 25

5. Color
   a. color -
   b. black - white -

F. Signs

1. Receptive
2. Expressive

Expressive Communication Modes and Functions

FUNCTIONS	PRIMITIVE INTENTIONAL	CONVENTIONAL INTENTIONAL	LINGUISTIC
Greeting			
Gain Attention			
Request Objects			
Request Actions			
Request Help			
Protest			
Confirmation			
Denial			
Level			
Comment			
Request Clarification			
Joint Focus			
Joint Referent			
Answer "wh" questions			
Attention of self			
Attention to external events			
Relate past experiences			
Goodbye		99	

NAME: _____

DATE: _____

Levels of Representation

A. Objects

1. Match: _____

2. Sort: Color Size Shape

3. Identify: _____

4. Label: _____

5. Give: With gesture
Without gesture

6. Action-object match: _____

7. Imitate action on objects: _____

8. Combine actions-objects: _____

9. Direct means-ends: _____

10. Indirect means-ends: _____

NAME: _____

DATE: _____

Pictures:

1. Match: CTP _____
   MJC 2" _____
   MJBW 2" _____
2. Sort: MJC 2" _____
   MJBW 2" _____
3. Action-Object: CTP _____
   LG _____
   MJC 2" _____
   MJBW 2" _____
4. Identify by Label: CTP _____
   LG _____
   MJC 2" _____
   MJBW 2" _____
   MJC 1" _____
   MJBW 1" _____
6. Label: CTP _____
   LG _____
   MJC 2" _____
   MJBW 2" _____
   MJC 1" _____
   MJBW 1" _____

Pictures-Objects:

1. Object-Picture: LG _____
   C 1" _____
   BW 1" _____
   C 2" _____
   BW 2" _____
2. Picture-Object: LG _____
   C 1" _____
   BW 1" _____
   C 2" _____
   BW 2" _____

101

Attachment 8

Determining Modes of Communication

Sensory Status:

Motor Status:

Present Level of Expressive Functioning:

Representational Skills:

Receptive Cues: tactile cues
conventional gestures
total communication
speech

Receptive Mode:

Expressive Mode:

Attachment 9

CODE x: Could happen in Activity
(x): Program Written
(DATE): Program Implemented

Date_____

IEP / ACTIVITY											